

How to fix your TQSL Location for LotW Confirmations

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The Logbook of the World (LotW) is increasingly becoming the means of choice for confirming amateur radio contacts.

The ability to confirm contacts instantly and at very low cost has transformed many aspects of chasing radio awards. In the previous century, it took months to confirm a typical contact. Even if the operator at the other end responded immediately, the return air mail trip plus a bit of delay at the other end added up to the better part of a month. It was not uncommon to wait months, with no means of finding out what the status was. A repeat request was sometimes the only option.

The high volume of contacts made by many DXers means that air mail was too expensive for routine confirmations. Air mail postage (both ways) plus two envelopes and a printed card could cost up to US\$ 10 in today's money, depending on the cost of postage in your part of the world and in that of the DX station's. The bureau routes bulk shipments of cards between national radio clubs, sharing postage and packaging expenses. Apart from the substantial cost savings, amateurs also save the effort of having to look up an address for each DX station.

Nowadays, many semi-rare DX stations upload their logs within a day or two. Most major DXpeditions to rare countries do so after about six months. In some cases, DXpeditions hold back their uploads, offering instant uploads to donors to encourage DXers to contribute to the expenses. Generous donors can have their contacts confirmed quickly; cheapskates have to wait a little longer.

Many of us (including the author) still keenly collect paper QSL cards. They still hold the mystique of foreign places, and many still sport nice pictures. However, LotW is much more efficient way of getting awards credit. For a small fee (currently US\$ 0,12), the contact can be confirmed on-line with no delay, no room for error and no risk of loss in the post.

New awards made possible by LotW

LotW has made DXCC, WAS and other ARRL awards so much more affordable and less cumbersome, but it did not create or fundamentally change those awards. The same goes for CQ Magazine's awards, which are now being added to LotW one by one. However, LotW did create a new series of awards which would not have been feasible before.

LotW offers near-instant confirmations, making it possible to display real-time leaderboards. Anyone can now see on an ongoing basis how the competition is progressing!

During 2014, the American Radio Relay League (ARRL) celebrated its centenary. To commemorate this event, the ARRL—owners and operators of LotW—conducted a year-long Centennial QSO Party (<https://centennial-qso-party.arrl.org/>). Participants had to accumulate points by working League members, with more credit for working officials. While a normal member counted one point, some officials counted much more. The most valuable contact was with N3KN, who counted a whopping 300 points as ARRL President. A lot of fun was had by all, with activity taking on contest-like proportions and big pileups evolving on valuable counters towards the end of the year. During the

year, the League callsign W1AW was used in all 50 states and all territories. These contacts contributed to QSO Party scores, and there were specific awards for contacts with W1AW in many locations. The W1AW activity generated approximately 3,5 million QSOs!

In 2016, there was a new award: National Parks on the Air (NPOTA) (<http://www.arrl.org/NPOTA>). Again, only LotW confirmations counted. 483 eligible areas were listed (<http://www.arrl.org/npota-list>). A lot activity ensued, and the leader K5RK contacted 460 of those! KB1HQS managed to work in an amazing 503 activations from eligible areas during the year (<https://npota.arrl.org/leader-board.php>). Over 21 000 activations and 1,1 million QSOs resulted (<https://npota.arrl.org/nps-stats.php>).

In 2018, the International Grid Chase is taking place (<http://www.arrl.org/international-grid-chase-2018>). The programme is based on Maidenhead locators. The earth is divided into 32 400 blocks of 1° latitude by 2° longitude. At the equator, these blocks are rectangles, roughly two times wider (east-west) than high (north-south). However, in the major population centres they are roughly square (hence the popular name “grid squares” preferred by the ARRL), and at the poles they are wedge-shaped and narrow in the east-west direction (<http://www.arrl.org/grid-squares>). Each locator has a four-character indicator consisting of two letters and two digits (e.g. AB12).

Monthly credit is given for contact with each “square” on each band. Many stations are actively chasing squares. As mid-year approaches, the leading station is K3WW, with over 1300 unique squares and 14 800 points (<https://igc.arrl.org/leader-board.php>)!

David S. Levine K2DSL has a calculator that will allow you to punch in your address and see your grid square on a map (http://www.levinecentral.com/ham/grid_square.php).

AMSAT has a calculator that will convert any latitude and longitude into six-character squares (<http://www.amsat.org/amsat-new/tools/grids.php>). This calculator will provide your six-character square (e.g. AB12ab), which provides resolution down to about 4 km by 4 km in most population centres. For most awards (including VUCC and the International Grid Chase), you only need the four-character square.

Setting up your LotW

Your locator is contained in TQSL, your LotW log signing engine. The locator cannot be extracted from your log files. Unfortunately, TQSL does not force participants to configure their locations properly.

In TQSL, you need a callsign-related certificate, which enables the cryptographic authentication. My own callsign certificate is for ZS6EZ, in the DXCC entity “Republic of South Africa”. If I intend to use another callsign, even from the same entity, I will need a new certificate. ZS6EZ/P, ZS6EZ/3 and ZS6EZ/6 are all examples of callsigns that would require a new certificate despite being in the same DXCC entity.

Once you have the certificate for your callsign, you can set up any number of locations for that callsign. For my ZS6EZ certificate, I have set up two locations. In the early years, I operated from the suburb of Groenkloof. Later, I moved further northeast to Olympus. I therefore have a TQSL location named “Groenkloof” and another named “Olympus” for ZS6EZ. I sign old contacts with the

“Groenkloof” location, and new contacts with the “Olympus” location. If and when I move again, or if I set up a temporary operating location elsewhere, I’ll set up a new location for the same callsign.

The certificate specifies the callsign and the DXCC entity. The location definition provides all the other information: CQ zone, ITU zone and grid square for all callsigns, and more information in specific cases. If you do not provide all this information when you define the location, no-one will be able to get awards credit for those parameters.

Several prominent recent large-scale DXpeditions have failed in this regard. Z60A is the prime example. The DXpedition spectacularly provided almost 100 000 QSOs with this brand-new DXCC entity. They uploaded all their logs to LotW not long after the operation, making many DXers happy. However, they disappointed many grid chasers. They correctly specified their CQ and ITU zones (15 and 28 respectively), but they did not specify their grid square. As almost all of Kosovo is in KN02, it is almost certain that all their operations took place from KN02. The QSL manager (or whoever configured their TQSL location) could therefore have provided everyone with LotW credit for KN02 with only five extra keystrokes! As it is, no-one got any credit for the Grid Chase from Z60A, and KN02 is virtually unworkable except with Kosovar stations.

Even serious participants in the Grid Chase fall into the same trap. They get credit for the majority of contacts that they make, yet they do not provide anyone else with credit, as their own locations are not properly configured in TQSL.

How to correct your location definition in TQSL

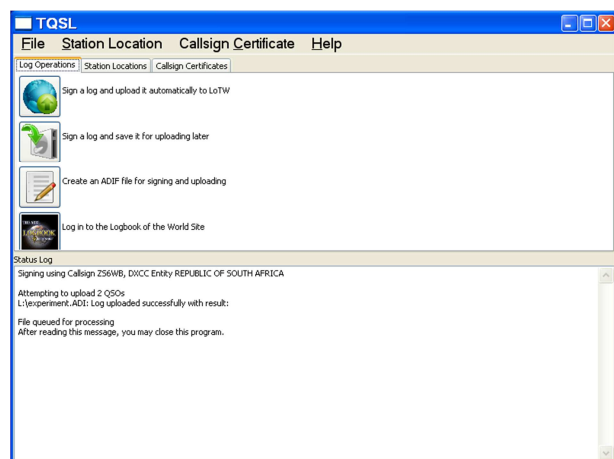
Everything up to this point serves as background only. If your location is not properly defined, no-one has been able to get credit for your QSOs during the Chase.

Fortunately, to fix the problem is easy. You have to properly fill in your location information, then re-sign the logs and submit them to LotW. A new QSL (with the necessary location information, this time) will be generated for each matching QSO, and the recipients will suddenly be able to use your electronic QSLs for awards.

Assuming that you’re using a recent version of TQSL, below you’ll find step-by-step instructions.

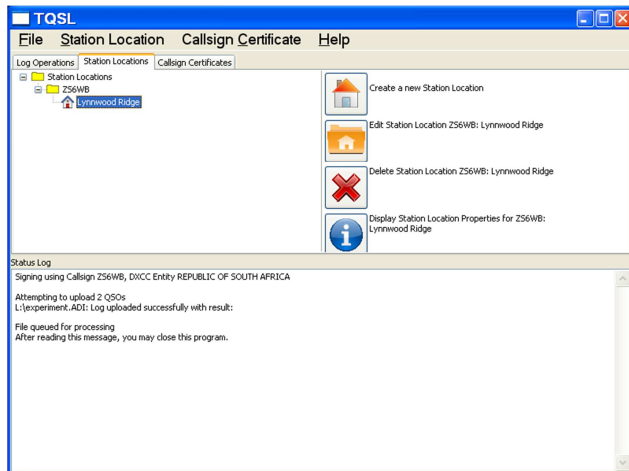
Step 1: Open TQSL

You should now see something like the screenshot below.

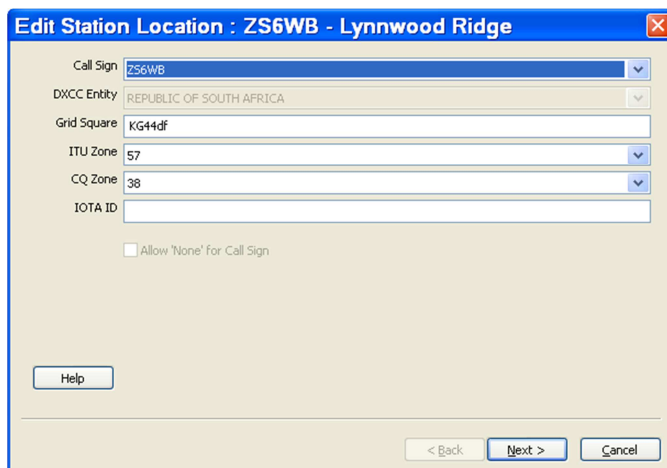


Step 2: Select “Station Locations”

Click the “Station Locations” tab. You should now see something like the screenshot below.



The example shown has only one location under the callsign. You may have more than one. Select the one that you want to change. It should turn blue (like the one above). Now click “Edit Station Location...”. A sub-window should appear, similar to the one below:



Step 3: Enter your location information

You can now enter your grid square, ITU zone and CQ zone as shown above. You can also enter other relevant particulars, depending on your DXCC entity and your actual location. Examples include your IOTA ID (relevant to the Islands on the Air award, if you live on an island) and your US County.

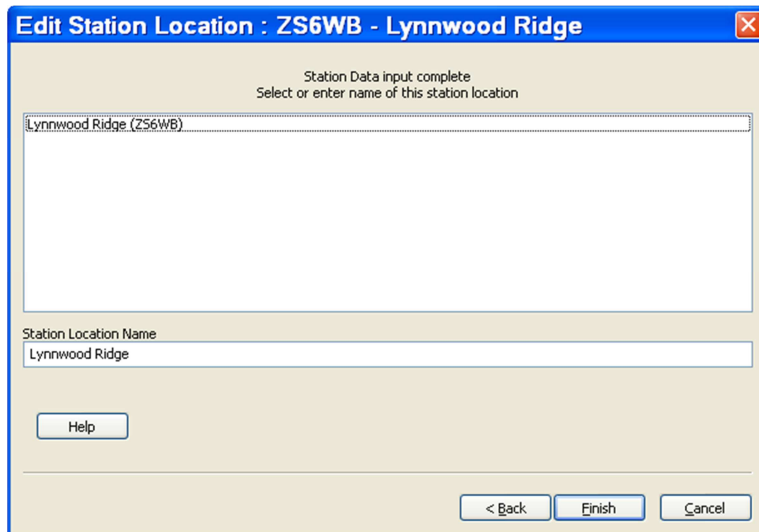
Here are some specific notes:

- **Grid Square:** You can use K2DSL’s engine to determine your correct locator (grid square) (http://www.levinecentral.com/ham/grid_square.php). You don’t need more than four characters. In my case, I can enter KG44ee or simply KG44.
- **ITU Zone:** Once you have your locator, you can use <http://epc-mc.eu/zones.php> to determine your ITU zone. Most countries are in a single ITU zone, and you can simply check

a map such as <http://www.mapability.com/ei8ic/maps/ituzone.php>. Some large countries require more footwork. A more detailed definition of each ITU zone can be found at <http://www4.plala.or.jp/nomrax/ITU/>. You can click on a zone to see a large-scale map. If you are still uncertain, you could check http://www.itu.hamatlas.eu/ITU%20Rules_en.pdf. Unfortunately, there is no definitive definition of ITU Zones from the ITU, as these zones are not really primarily relevant to amateur radio.

- **CQ Zone:** Once you have your locator, you can use <http://epc-mc.eu/zones.php> to determine your CQ zone. Most countries are in a single CQ zone, and you can simply check a map such as <http://www.mapability.com/ei8ic/maps/ituzone.php>. Some large countries require more footwork. A more detailed definition of each ITU zone can be found at <http://www4.plala.or.jp/nomrax/CQ/>. You can click on a zone to see a large-scale map. If you are still uncertain, you can consult the detailed official definition of each CQ Zone at http://www.cq-amateur-radio.com/cq_awards/cq_waz_awards/cq_waz_list.html.
- **IOTA ID:** If you live on an island, you may want to include your IOTA reference for the benefit of island chasers. At <https://www.iota-world.org/iota-directory/>, you'll find a link under "IOTA Directory" and "IOTA Island Group Listings" for each continent. In this list, you can look up your island. Each island has an identifier consisting of two letters, a dash and three digits. As an example, AF-094 is the Mediterranean Sea Coast West Group within Algeria.

Once you've completed all the fields, click "Next".



The screenshot shows a Windows-style dialog box titled "Edit Station Location : ZS6WB - Lynnwood Ridge". Inside the dialog, there is a message: "Station Data input complete. Select or enter name of this station location." Below this message is a list box containing "Lynnwood Ridge (ZS6WB)". Underneath the list box is a text field labeled "Station Location Name" which contains the text "Lynnwood Ridge". At the bottom of the dialog, there are three buttons: "< Back", "Finish", and "Cancel". There is also a "Help" button located to the left of the bottom buttons.

You can now rename the location as desired in the lower field. As you can see, the name of the location as displayed in the list (upper window) includes the name of the callsign to which it is associated.

Now click "Finish", and your location should be correctly configured.

Step 4: Re-sign your logs

Now re-sign your logs that you've previously submitted to produce a new .tq8 file. Upload this file to LotW, and you're done.

You can check all the new QSLs that have resulted, to ensure that your own details appear correctly in those QSLs.

Here is a list of my QSLs from Z60A:

[New Query](#)

9 Records Shown (1-9)
Sorted by QSO Date (0.015575 seconds elapsed)

	Call sign	Worked	Date/Time	Band	Mode	Freq	QSL
Details	ZS6EZ	Z60A	2018-03-11 17:48:00	20M	CW		REPUBLIC OF KOSOVO
Details	ZS6EZ	Z60A	2018-03-11 11:19:00	10M	CW		REPUBLIC OF KOSOVO
Details	ZS6EZ	Z60A	2018-03-10 11:39:00	15M	CW		REPUBLIC OF KOSOVO
Details	ZS6EZ	Z60A	2018-03-09 18:17:00	30M	CW		REPUBLIC OF KOSOVO
Details	ZS6Z	Z60A	2018-02-18 13:13:00	20M	CW		REPUBLIC OF KOSOVO
Details	ZS6EZ	Z60A	2018-02-18 09:48:00	17M	CW		REPUBLIC OF KOSOVO
Details	ZS6EZ	Z60A	2018-02-16 11:11:00	12M	CW		REPUBLIC OF KOSOVO
Details	ZS6EZ	Z60A	2018-02-11 15:24:00	20M	RTTY		REPUBLIC OF KOSOVO
Details	ZS6EZ	Z60A	2018-01-25 17:35:00	20M	SSB		REPUBLIC OF KOSOVO

Most recent QSO record received 2018-04-10 10:16:08Z

Select QSOs to List

Call sign worked: May use wildcards (?) and (*)

Your call sign:

Starting Date: Time:

Ending Date: Time:

Mode: Band:

☒ Show confirmed QSOs only

DXCC Entity:

Sort by: ☒ Descending

Award Account:

Submit Query Form

Common Queries

Clicking on any of the “Details” links shows details of that particular QSL.

Some examples of LotW QSLs

Here are some examples of QSLs, which one can view by clicking “Details” on the QSO list in LotW.

The first is a QSL from Z60A, from the list above:

Station

Call Sign: ZS6EZ

DXCC: REPUBLIC OF SOUTH AFRICA (462)

CQ Zone: 38

ITU Zone: 57

Grid: KC44EE

Worked Station

Worked: Z60A

DXCC: REPUBLIC OF KOSOVO (522)

CQ Zone: 15

ITU Zone: 28

Date/Time: 2018-03-11 17:48:00

Mode: CW (CW)

Band: 20M

QSL: [2018-04-01 08:32:50](#)

Record ID 916848570 Received: 2018-03-12 21:17:07

My own particulars are all shown correctly. Z60A’s CQ and ITU zones are shown, but no locator is shown. The QSO is therefore useless of the Grid Square Chase.

Here is an example of a QSL from a station that correctly entered a lot of information (including US state and county) into the location definition, but not the zones:

Station	
Call Sign	KD7CJN
DXCC	UNITED STATES OF AMERICA (291)
CQ Zone	03 (Inferred; user did not specify zone)
ITU Zone	06 (Inferred; user did not specify zone)
Grid	CM07CI
State	California (CA)
County	Santa Clara
Worked Station	
Worked	ZS6EZ
DXCC	REPUBLIC OF SOUTH AFRICA (462)
CQ Zone	38
ITU Zone	57
Grid	KG44
Date/Time	1999-12-12 17:55:00
Mode	SSB (PHONE)
Band	10M
Frequency	28.30000
QSL	2018-06-08 02:30:57
Record ID 943059399 Received: 2018-06-08 02:30:57	

The system guessed the zones correctly, but they cannot be used for awards recognition because there is some doubt.

Here is an example of a QSL that contains a lot of information, with everything unambiguous and correct:

Station	
Call Sign	J49NLE
DXCC	JAPAN (339)
CQ Zone	25
ITU Zone	45
IOTA	AG-007
Grid	PM86HL
Prefecture	Ishikawa-ken (30)
City / Gun / Ku	Hakusan-shi (3010)
Worked Station	
Worked	9M0Z
DXCC	SPRATLY ISLANDS (247)
CQ Zone	26
ITU Zone	50
IOTA	AS-051
Grid	OJ67WI
Date/Time	2016-05-10 21:46:00
Mode	CW (CW)
Band	30M
QSL	2018-06-06 13:14:22
Record ID 942673805 Received: 2018-06-06 13:14:22	

Both stations specified their CQ and ITU zones, 6-character locators and IOTA ID correctly. The Japanese station also included Prefecture and Gun. In future, this QSL could be used for a number of different awards.

Finally, here is an example of a QSL that can be used basically only for DXCC and WPX:

Station	
Call Sign	OZ7GO
DXCC	DENMARK (221)
CQ Zone	14 (Inferred; user did not specify zone)
ITU Zone	18 (Inferred; user did not specify zone)
Worked Station	
Worked	3DA6Z
DXCC	SWAZILAND (468)
CQ Zone	38
ITU Zone	57
Date/Time	1998-12-29 15:29:47
Mode	CW (CW)
Band	12M
Frequency	24.89400
QSL	2018-06-04 14:14:14
Record ID 941965186 Received: 2018-06-04 14:14:14	

Both zone numbers are missing. If OZ7GO configures the location correctly and signs and uploads the log again, this QSL will be replaced by a correct version that could be much more useful to the recipient!