Instructions for the
Settle to Carlisle Railway Challenge

The Dalesman exits Blea Moor Tunnel on the up line

1	Go to the sound files download page. (Assume log sheets already printed)
2	Read the conditions (be clear about time-limits).
3	Download the appropriate QNC sound file.
4	Translate the Morse and write your QNC in plain text on the ad hoc log sheet.
5	Use Google Maps and its many embedded site-view and street-view images, as well as search engines to find answers. Write answers on the appropriate log sheet.
6	Generate the QTC sound file and check it against your log sheet.
7	Consult the Sending Options table for sending-media choices.

Each QNC presents a mix of simple and compound questions. Scoring is somewhat analogue in nature in that each answer in your QTC potentially carries five points regardless of complexity. The more detail given in an answer the more likely it is to earn all five points.

While there's no limit on the length of QTCs, a balance needs to be struck between the amount of detail and a practical length of text to send. Avoid ambiguities caused by being too brief, ambiguities can cost points.
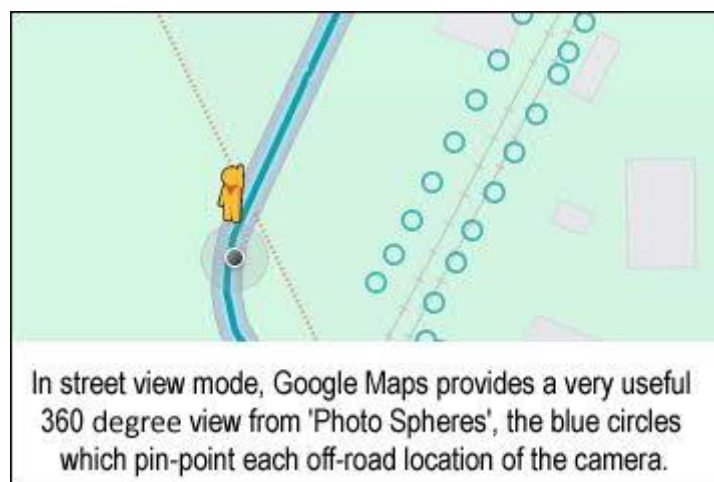
We have an impartial volunteer examiner, Ruth ZL4KA, who will mark your QTCs after receiving them in plain text. Except for questions to Stan, zl3tk@qsl.net no correspondence will be entered into.

For all STC traffic the CW speed may be between 10 and 25 wpm.
If a QNC is too fast, slow it down by up to 50 % without any change of pitch by simply uploading it to https://audiotrimmer.com/audio-speed-changer, then save the file at the speed of your choice.

For simplicity when sending map coordinates in Morse, unsigned Decimal Degrees (DD) format is used in which the decimal point is replaced by the letter 'R' and the quadrant indicator is a single-letter suffix.

Map coordinates to four decimal places have an 11 m granularity at mid-latitudes, this usually provides adequate accuracy. However in the STC environment where greater accuracy is sometimes required, five decimal places may be used to give a 1.1 m granularity.

Google Maps was the primary source of searchable information used in constructing CW STC, therefore it will often be the first port-of-call when searching for answers. Street view mode has been heavily utilised.

In street view mode, Google Maps provides a very useful 360 degree view from 'Photo Spheres', the blue circles which pin-point each off-road location of the camera.

This example **QNC** carries only one instead of the usual five questions.
It simply illustrates the format you'll hear in downloaded sound files.

```
VVV VVV GLOUCESTER STC CT QNC NR77  01 SEP25=

Q1/1   GIVE NAME AND ALTITUDE OF THE SPECIAL
       GEOLOGICAL FEATURE LOCATED
       AT 54R70073N  2R46736W  AR

DE ZL3TK  SK
```

This example **QTC** carries only one answer typical of a sound file. In real QTCs, fewer than five questions may be answered (understanding that there will be a proportional reduction in potential points).

```
VVV VVV GLOUCESTER STC CT QTC NR77  05SEP25=

A1/1   SOURCE OF THE RIVER TEES,  795 METRES AR

DE  VK9NT  SK
```

The example **QTC below** carries five answers to five questions in a normal STC QNC.   It illustrates the format to adopt for HF transmissions. In real QTCs, fewer than five questions may be answered (understanding here will be a proportional reduction in potential points able to be earned)

VVV VVV   STC   QTC   CT   NR12   17DEC24=

A1/5   BLEA MOOR TUNNEL.   ROAD B6255.   21 MINUTES TO
THE NEXT VILLAGE AT 30 MILES PER HOUR   AR   BK

ZL3TK replies with either QSL A1 QRV A2 BK,   or sends a repeat request
using the standard protocol shown in the instructions.pdf   When A1 has been
resolved, ZL3TK sends QSL A1 QRV A2 BK and normal protocol resumes.

A2/5   JOHN ADAMS DESIGNED THE VIADUCT IN 1869. BATTY
MOSS IS UNSUITABLE FOR AN EMBANKMENT   AR   BK

ZL3TK replies with either QSL A2 QRV A3 BK,   or sends a repeat request
using the standard protocol shown in the instructions.pdf   When A2 has been
resolved, ZL3TK sends QSL A2   QRV A3 BK and normal protocol resumes.

A3/5   THE BECK FLOWS UNDER PIER FIVE AT 54R2493N
2R3708W, 86 METRES FROM THE NORTH ABUTMENT AR   BK

ZL3TK replies with either QSL A3 QRV A4 BK,   or sends a repeat request
using the standard protocol shown in the instructions.pdf   When A3 has been
resolved, ZL3TK sends QSL A3 QRV A4 BK and normal protocol resumes.

A4/5   WEATHER STATIONS ARE POWERED BY RENEWABLE
ENERGY AND PLACED STRATEGICALLY ACROSS THE
MOORLAND   AR   BK

ZL3TK replies with either QSL A4 QRV A5 BK,   or sends a repeat request
using the standard protocol shown in the instructions.pdf   When A4 has been
resolved, ZL3TK sends QSL A4   QRV A5 BK and normal protocol resumes.

A5/5   LATTICE STEEL TOWER AT THE STATION SUPPORTS
ANTENNAS FOR SERVICES INCLUDING CELL PHONES AND
RAIL MANAGEMENT AR   DE   VK9NT   KN

ZL3TK replies with either QSL A5 and the QSO terminates normally,   or ZL3TK
sends a repeat request using the standard protocol shown in the instructions.pdf
When A5 has been resolved, ZL3TK sends QSL A5 and the QSO terminates
normally.

The Settle to Carlisle Railway Challenge
Statistics and Points Potential

Number of QNCs	10
Duration of CW STC in weeks	12
Time frame to answer each QNC in weeks	2
Number of questions per QNC	5
Points per question (simple and compound)	5
Total (potential) points per 'sound file' QTC	25
Bonus points for QTCs sent live online	5
Bonus points for QTCs sent live via HF	10

Options for sending QTCs

Option	Mode	Transport	Logistics
1	email	Sound file to	zl3tk@qsl.net
2	online	Vband	email for private channel sked
3	online	Vail	email for private channel sked
4	online	echolink MCW	email for sked
5			Tuesday 0830Z
6	HF radio*	7.0257 MHz	Thursday 0830Z
7			Saturday 0830Z

*Sound file protocol provides a 'sterile cockpit' environment by default. To eliminate distractions, except for signal reports, formal traffic handling on HF Radio should be conducted using the same business-only protocol - restrict to essentials please.

Repeat Requests

QRM, QRN and QSB all characterise HF comms, often making repeats necessary during traffic handling when accuracy is vital. There is an established protocol to make repeats an easy process.

Reference text: **THE GRASS IS ALWAYS GREENER 35 METRES PAST THE FENCE.**

Request Code	The code means: Please repeat …	Choose the nearest correctly-received word to reference the one you want repeated, then precede it by the Request Code	The missed word(s) you want repeated is (are) …	The sender will reply with the reference words in the appropriate place relative to the requested words
WA	THE WORD AFTER	WA METRES	PAST	METRES PAST
WB	THE WORD BEFORE	WB METRES	35	35 METRES
AA	ALL AFTER	AA METRES	PAST THE FENCE	METRES PAST THE.FENCE
AB	ALL BEFORE	AB GREENER	THE GRASS IS ALWAYS	THE GRASS IS ALWAYS GREENER
BN	WORDS BETWEEN	BN ALWAYS PAST	GREENER 35 METRES	ALWAYS GREENER 35 METRES PAST

Note 1. When a word occurs twice, such as 'THE' in the example, it may be necessary to use a different reference word and request code, e.g. To request a repeat of GRASS, use WB IS instead of WA THE, and in some cases by using two reference words to establish the context.

Note 2. In the interest of brevity, no niceties such as PSE or BK are expected between repeat requests and responses because the context is obvious. When satisfied that all is correct, simply send QSL K

A certificate will be awarded to every participant.

Steam excursion crossing the 'Talbot Short' Dent Head Viaduct,
where on the North Yorkshire Moors perspective is everything!