

UGL REGIONAL LINX



**Electronic Track Work with a track Vehicle (ETW V) Briefing
Package CRN-GDN-PCU-1851047461-40**

**LINKING
COMMUNITIES.**

**CONNECTING
CUSTOMERS.**



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Document Control

Function	Position	Name	Date
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Revision	Issue Date	Revision Description
Draft	January 2022	Working draft

ETW-V Operational Objectives and Principles

The operational objectives for Electronic Track Work with a track Vehicle (ETW-V) functionality include:

- Reduce the risks associated with a rail track vehicle exceeding the limit of its work on track authority
 - Monitor the location of rail track vehicles within a work on track authority and provide an Out-of-Authority alarm to the operator should they exceed authority limits
 - Provide the rail track vehicle operator tools to improve their situational awareness in relation to work on track authority limits, including the provision of a warning on approach to the limit
- The operating principles for ETW-V functionality are:
 - ETW-V shall be a separate enhanced version of ETW specifically designed for use in rail track vehicles
 - The ETW-V display will include features to aid in awareness of the vehicle location in relation to authority limits
 - Functionality for ETW-V shall include the creation of proximity reminders and Out-of-Authority alarms
 - Work on track authorities shall be able to be created and managed as per the existing ETW functionality

Concept Scope

Electronic Track Work with a track vehicle (ETW-V) is an application adapted for rail track vehicle work that uses the same operational procedures as ETW. Track Occupancy Authorities (TOA's) are requested and accepted in the same manner but are displayed on a larger Android tablet rather than a mobile phone. The ETW-V application screens contain status and location content for up to three (3) TOA's for Protection Officers (PO's) to monitor on a single rail track vehicle. The ETW-V application also provides proximity reminders and out of authority alerts to the Protection Officer. PO's can choose to fulfill TOA's manually and can request extensions of time for a given TOA. All actions are available in log files for reference and review as per the existing ETW application.

Field Device

ETW-V is designed for use on an Android tablet connected to an external power source. The use of a tablet screen is required to make the information on the display easily viewable. As frequent GPS updates are required to monitor the vehicle location, an external power source is used to ensure battery life is suitable. It is expected that the ETW-V application could be used in JHR track vehicles to complement their existing Vanguard devices, eliminating the need for installation of any additional aeriels or provision of further NextG accounts.

The display on the ETW-V tablet is configured to not go into power saving or blank out while a TOA exists so that it is always visible to the PO.

Briefing Scope

This briefing package addresses only the key differences between the ETW App and the ETW-V App and assumes attendees meet the following pre-requisites:

Current login credentials for, and competency in the use of the ETW App and Protection Officer 2 - 4

ETW V Start up and Login

The ETW-V Application is started by selecting the ETW-V Icon. Starting the Application will display the Login screen for ETW.



Once started, the ETW-V Application will display the Login Screen. To Login to ETW, follow the steps below:

- Tap on the Username to activate the keyboard. Enter the Username then tap on the Password field and enter the password.
- Note: The Username for ETW-V is your RIW ID. Password will be your assigned Password for ETW.
- Tap on the Login Button after entering Login credentials.



If this is your first-time logging into the ETW, a disclaimer will be displayed. Select “I Agree” to proceed to the Home Screen.

Note: Selecting “I Disagree” will take you back to the Login screen and use of the ETW-V will not be permitted.

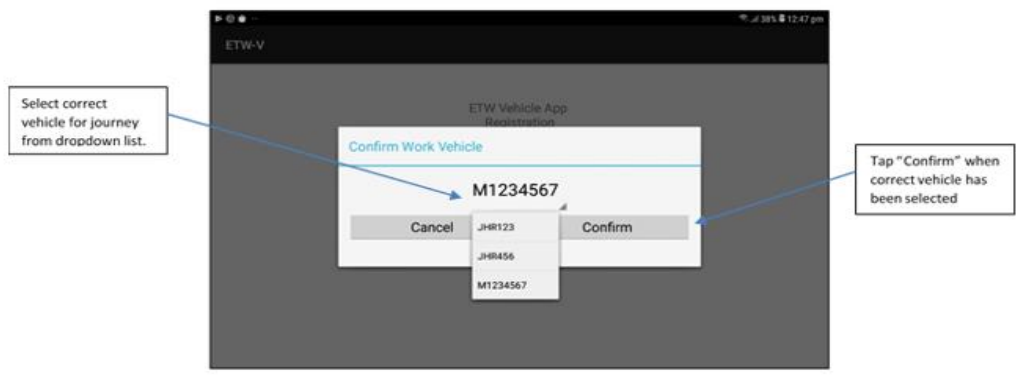


The Disclaimer will only ever be shown the first time the ETW-V Application is used. This will only ever be shown again if reset by 4Tel.

To Confirm Work Vehicle

ETW-V will now ask you to confirm which high-rail or Rail vehicle you will be using to perform work.

- Tap on the Asset ID and a drop-down list will be revealed, select the Hi-Rail vehicle or Tablet you will be using.
- Tap confirm once the correct asset is selected



Note: You cannot use this application any further without selecting a hi-rail vehicle or tablet asset ID. If you log in with an incorrect vehicle you will have to log out and relog back in to select the correct vehicle.

Home Screen

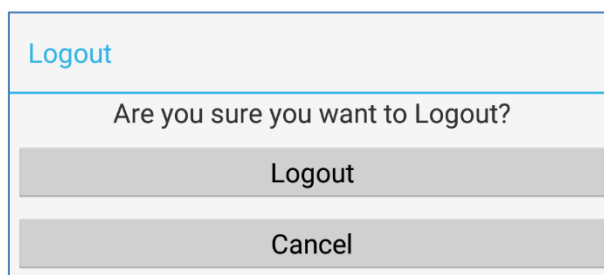
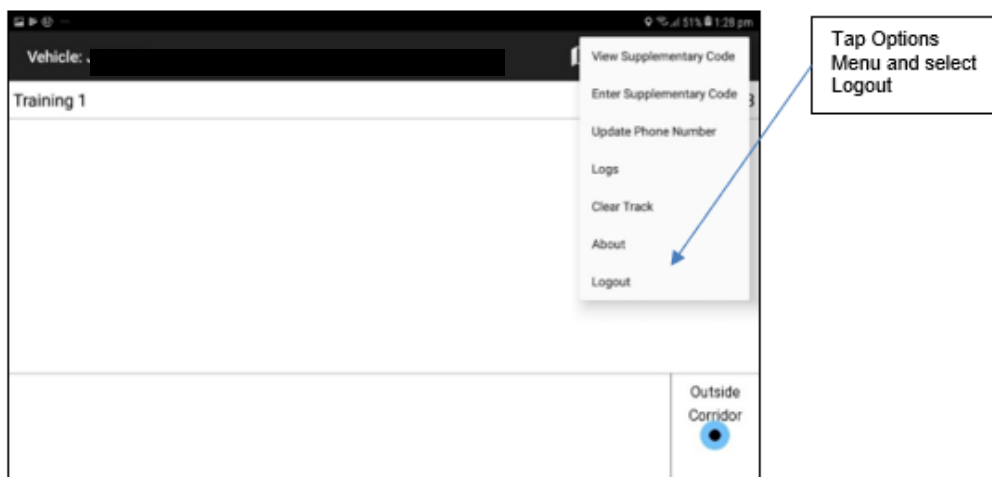
After a successful login, the Home Screen will be displayed. When logging in, always check that the correct name and mobile number are displayed on the Home Screen.



Logging Out

To log out from the ETW-V Application, tap the Logout button from the Options menu on the Home Screen.

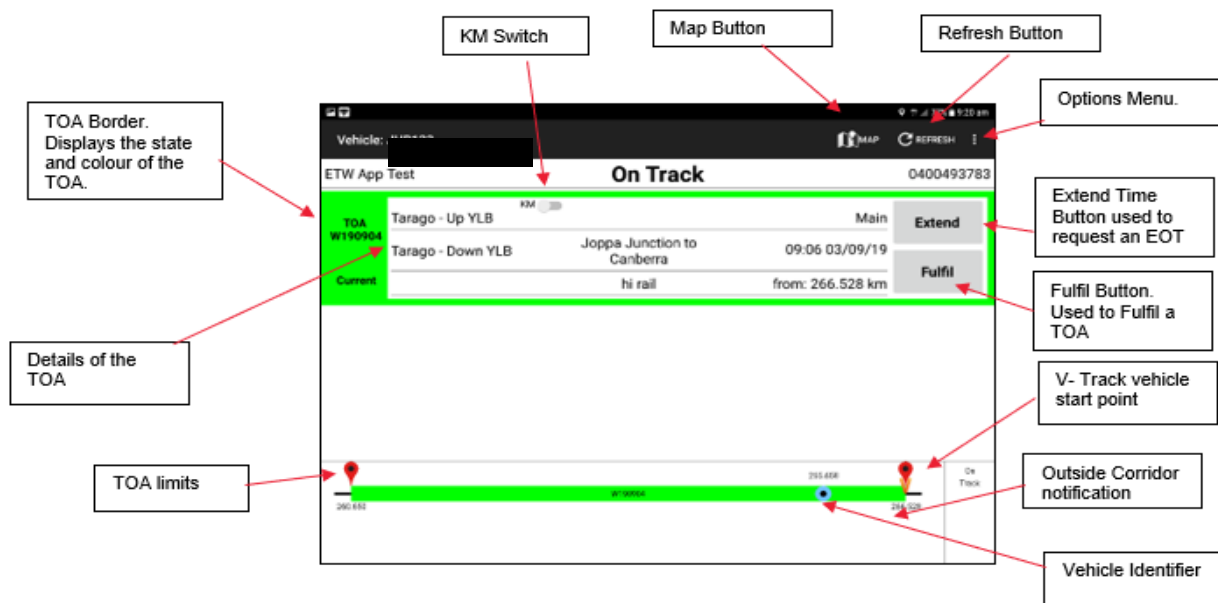
A confirmation dialog will be displayed after tapping Logout. To proceed with Logout and exiting the Application tap Logout. Tapping the Cancel button will cancel this action



TOA Details Screen

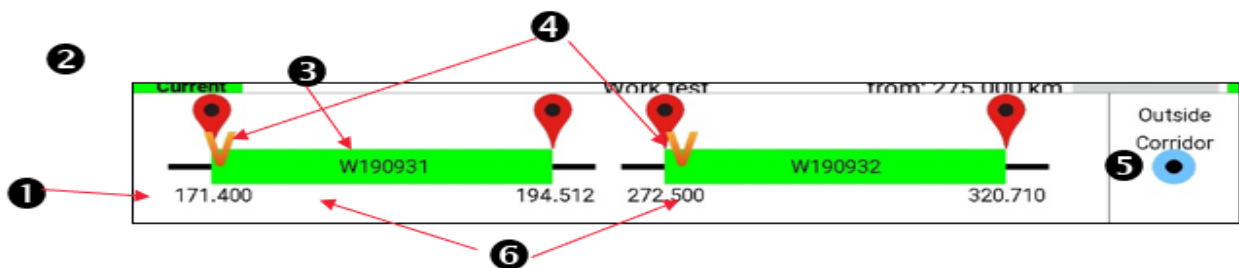
The TOA Details Screen is accessed by tapping on a TOA from the Home Screen. This will display the details of the TOA selected. From this screen, the selected TOA can be actioned, for example Accepting the TOA or Fulfilling the TOA

Below is a quick reference to the TOA Details Screen



Corridor View

On ETW-V the Corridor is always visible on the device. When a TOA is held, it will be displayed at the bottom of the screen as a single line in ascending KM in accordance to the TOA held as displayed below;.



1 The TOA limits are displayed in KM points.

2 Start and finish points are displayed with Pins.

3 The corresponding TOA number is listed within the pins and solid colour represents state of TOA as per the Colour Scheme

4 The Track Vehicle Start point is represented by a V

5 The Blue dot will show your location on the track if you are physically located within the corridor. This will continue and be updated every 30 seconds with GPS availability essentially driving the TOA though the corridor. If you are not within the corridor the Blue location dot will be shown in the "Outside Corridor" box.

6 Multiple TOAs are represented in separate sections in the corridor

TOA and Status Bar Colour Scheme

A colour scheme is used in ETW-V to display the various states of a TOA making it easy to recognise what is happening. The below table represents the colours used and what state they represent with examples of how you will see them on the TOA details screen banner

State	Colour	Meaning
Proposed	Light Grey	TOA Proposed
Current	Green	TOA Current
Pending EOT or	Yellow	TOA Pending Overlapping
Pending Overlapping	Yellow	TOA S0073 – Pending EOT
Fulfilled	Dark Grey	TOA S0073 - Fulfilled
Status bar alert	Yellow	Off Track
Status bar alert	Orange	Proximity Reminder
Status bar alert	Red	Out of Authority
Status bar alert	White	On Track

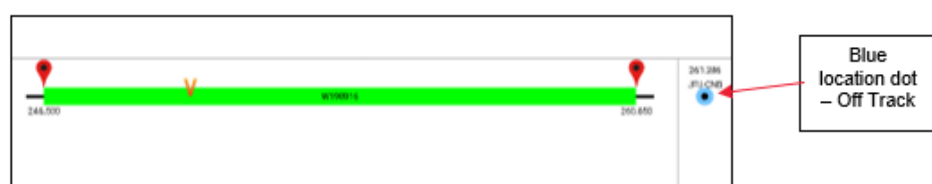
On Track

Once the rail track vehicle TOA is “accepted”, ETW-V labels the TOA as Current and the location of the vehicle is monitored using GPS information, updated at 30 second intervals.

If the vehicle can be mapped to the corridor, the location of the vehicle is presented as a blue dot on a TOA schematic display along with the current km indication.

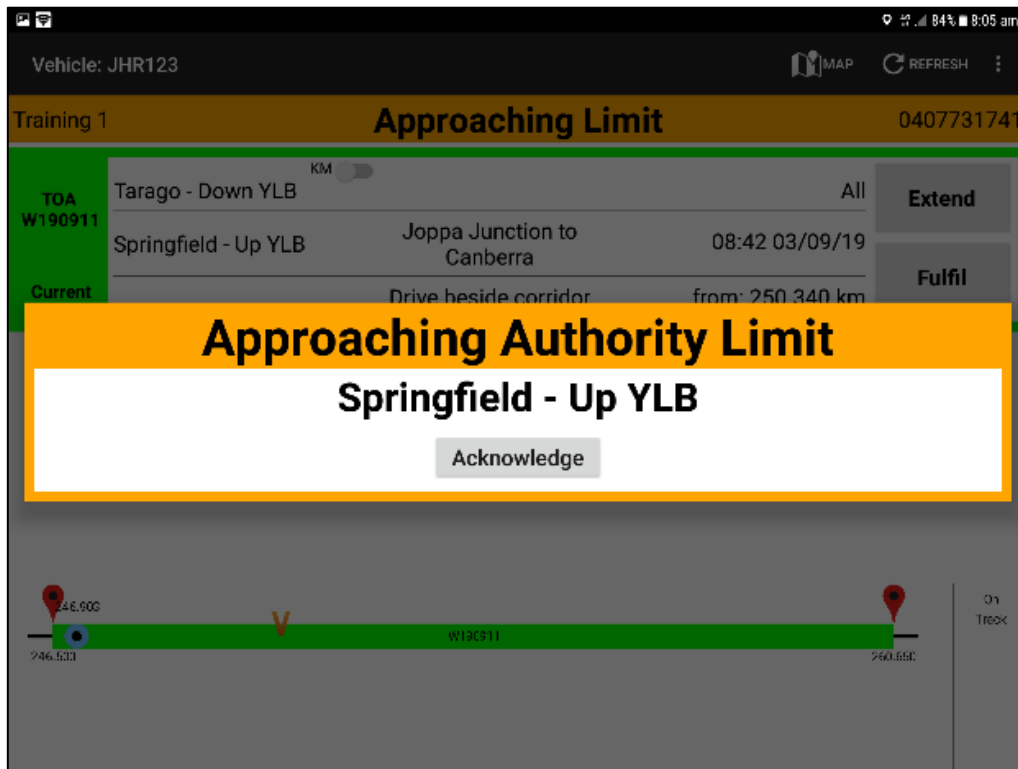


The blue dot will appear in the Outside Corridor area (bottom right hand side of display) when the GPS location of the vehicle cannot be translated to a position along the rail corridor.

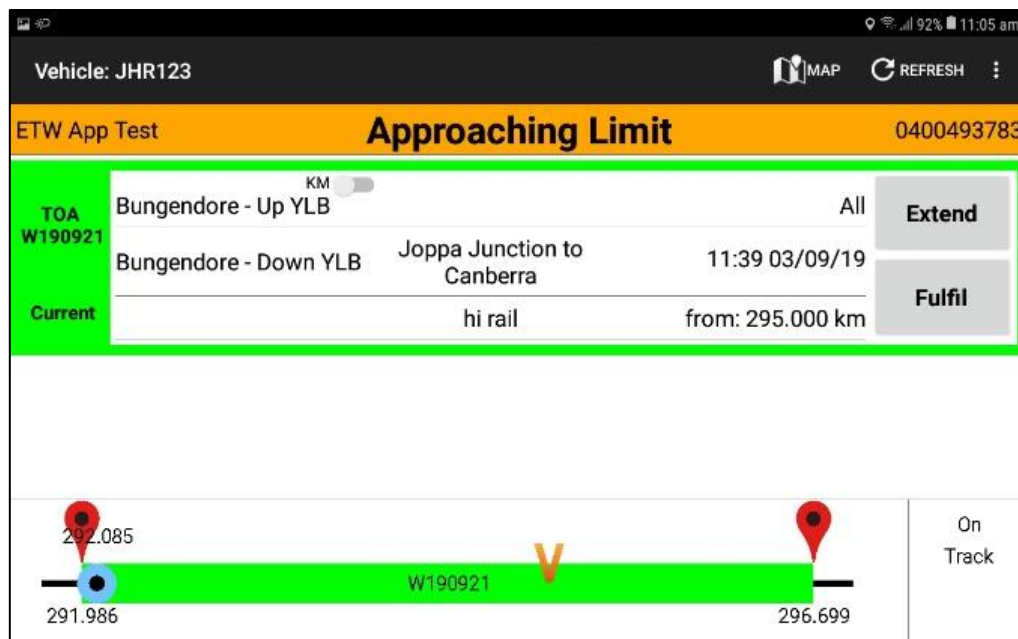


Proximity Reminder

A proximity reminder is triggered when the vehicle approaches the TOA limit. This is to remind the user that they are approaching the end of their TOA limits.

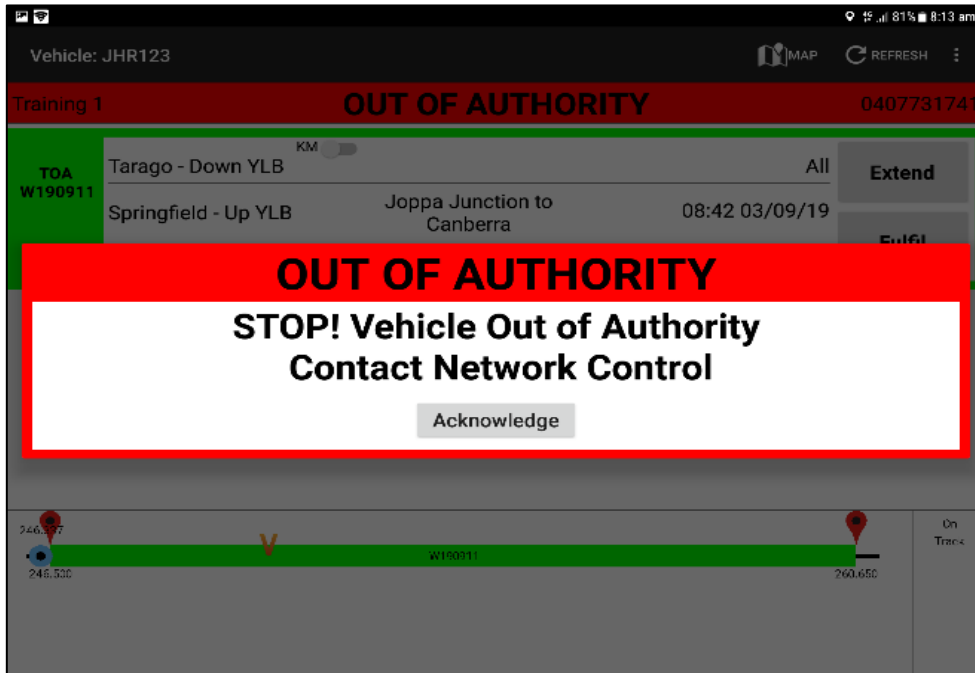


As with the Out of Authority alarm, once acknowledged, the Approaching Authority Limit alert banner remains at the top of the display until it is no longer a valid alert.

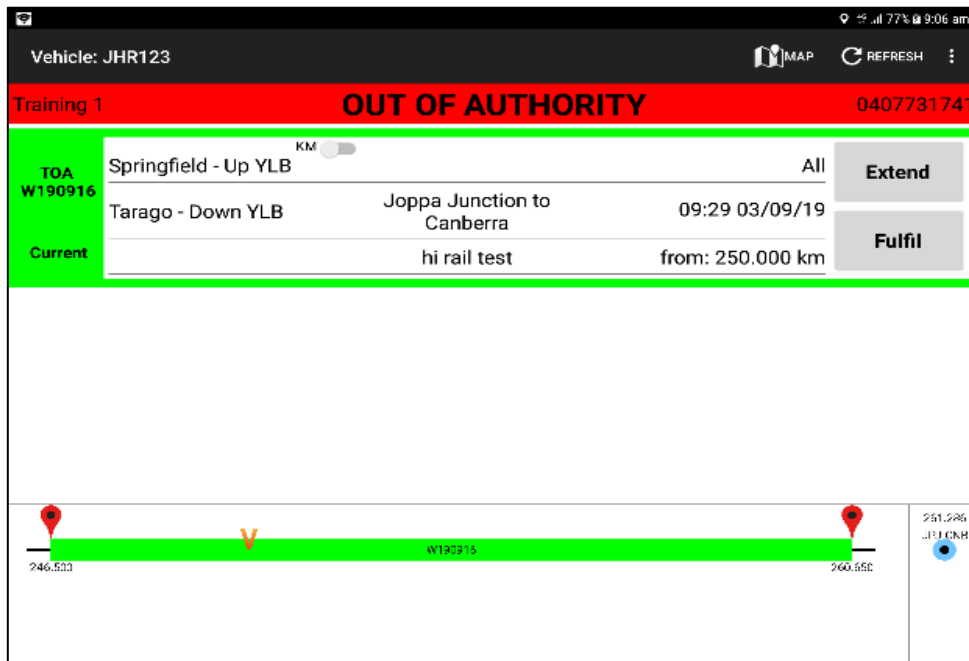


Out of Authority Alarm

Should the position of the vehicle be identified beyond the limits of the TOA, an Out-of-Authority alarm is generated on ETW-V see below. The Out of Authority alarm provides both a visual and an audible alarm



The Out-of-Authority condition will only be triggered if the rail track vehicle is not within any of the TOA's it is associated with. Once acknowledged, the Out of Authority alarm banner remains at the top of the display until it is no longer a valid alert see below.



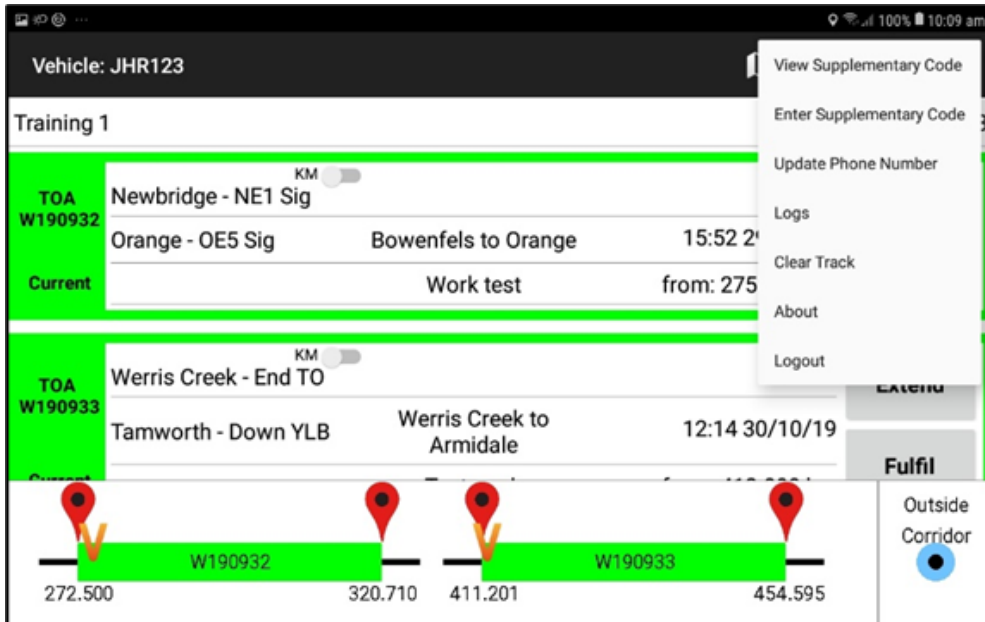
Note: Out of Authority alarms are displayed both in cab and in the Network Control Centre. If you receive an Out of Authority alert, make an emergency call to the Network Control Officer

Clear Track Function

If the PO is unable to fulfil a current TOA because of poor mobile signal, the clear track function can be used once the hirail has been removed from track.

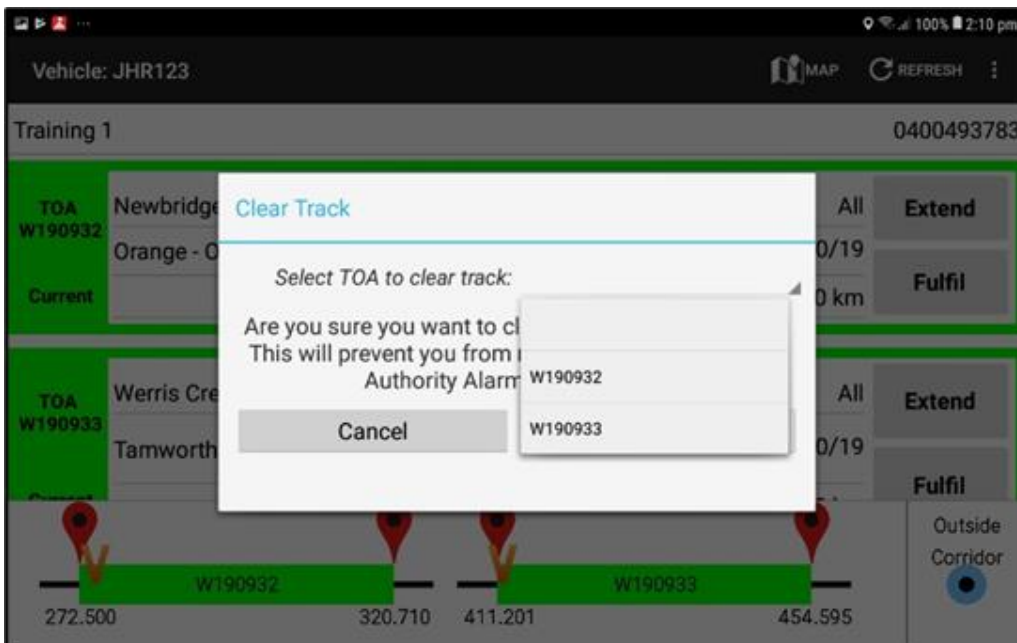
To do this they will need to;

- 1 Tap Options menu from home screen



- 2 Select "Clear Track".

- 3 A Clear Track Dialog will appear, select the appropriate TOA you wish to abandon from the dropdown list



Note: Once you have selected Clear Track you cannot resume work under the same TOA. You must fulfil the TOA as soon as service becomes available.

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