

## Geofencing Immediate Advice

Issued to: **Network Rail line managers, safety professionals and accredited contractors**

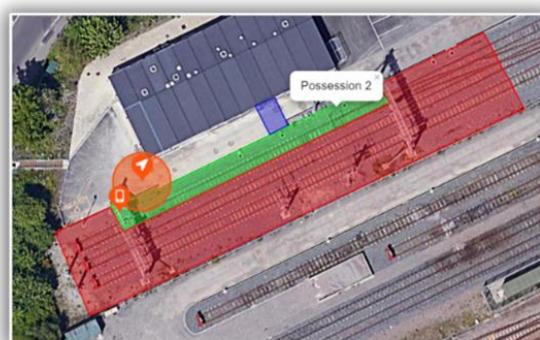
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Location: National

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Technical Authority



### Overview

Product Acceptance (PA) certificates PA05/07419 Tended, PA05/07400 Geo-Trak (Track Tracker) and PA05/07418 OnWave have been limited to safeguarded areas of work. These are fully restricted from being used as ALO warning devices.

In January 2024, the Technical Authority undertook independent equipment trials at our Milton Keynes offices to validate the system capabilities in terms of accuracy and alerting.

The trials highlighted several issues subject to further review:

- Geo-fence area within the system not aligned with intended physical boundary.
- Response times for alarms could mean that alarms are not triggered consistently for users based on movement relative to the geofence.

- Different responses from different hardware/software version of equipment.
- Process to identify if the configuration of the systems remains aligned to the PA Certificate.
- Inconsistency between system dashboards and physical locations.
- Human Factors analysis associated with the differing alarms/warning associated with different suppliers' equipment.

**NOTE:** Issues identified above are general, each supplier have at least one of the issues listed above

### Immediate action required

The Product Acceptance for all suppliers has been amended to limit their use, and to only allow the follow activities:

#### Full Acceptance

The product may be used for the purposes of site control (e.g. monitoring of plant, personnel and equipment positions) on Network Rail's operational infrastructure where other operational controls are in place.

All limitations and instructions of use must be adhered to and built into appropriate safety controls, processes and safe systems of work.

**The use of the system and implementation is governed by NR Standard NR/L2/OHS/501/W4 and specific conditions detailed within.**

**The Technology shall not be used as a virtual fence for worker notification (personal warning) on ALO (Any line Open).**

**It shall only be used for people tagging in fully protected work areas where minimum separation of 3m to any unsafe zone can be provided.**

**It may be used for asset tagging (Geotagging marker boards etc).**

**In all cases the product shall not be the primary method of control.**

We will be actively working with the suppliers to:

- Review and define the minimum expected response times for alerts and alarms to both users and controllers.
- Review and improve the data quality used to set up the Geo- Fence.
- Review and define the expected geofence boundary validation process.
- Review and define the dashboard reporting expectations.

This is a temporary setback, Geo-Warning technologies form part of our future safety strategy. We are committed to ensure the safety of the workforce and the railway, is of utmost priority. Over the next few months, we will be working with the suppliers to action the points described, improve **NR/L2/OHS/501/W4**, and update the product acceptance certificate.