

# **LDIS SYSTEM AND 1000CT LOCO CONTROLLER ON UNDERGROUND LOCOMOTIVES**



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**CONFIDENTIAL**

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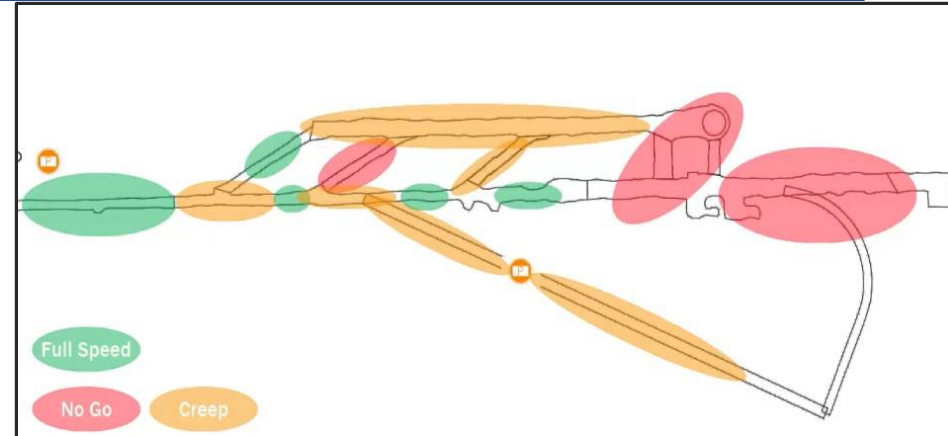
## Background

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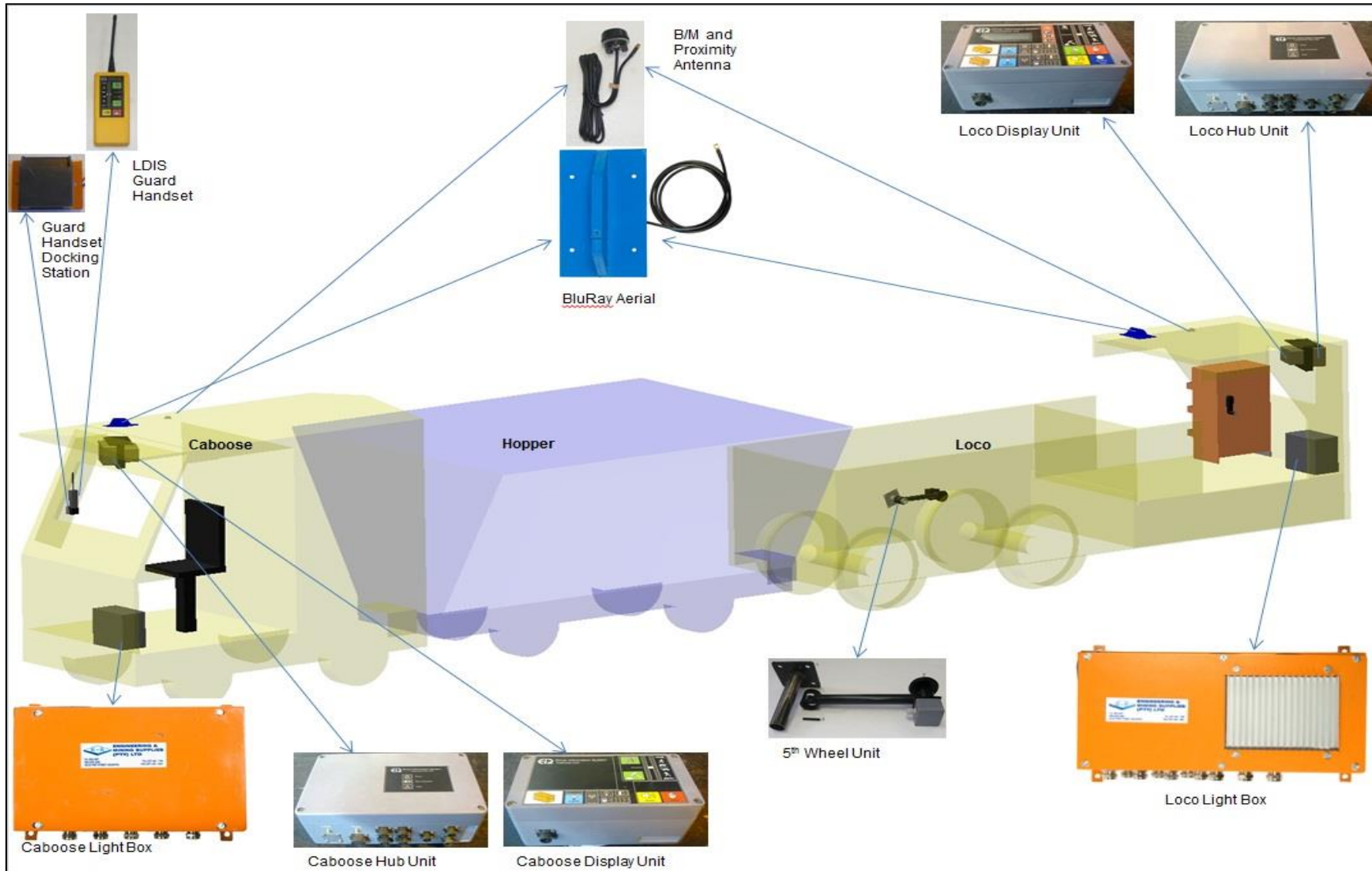
- LDIS – Loco Driver Information System
- Collision avoidance system
- LDIS has been installed at Amandelbult since 2012
- Fleet of 160 locos
- LDIS works with the A&R 900CT controller and can integrate with other controllers

## Advantages and Functions

- Lowers risk of RBE fatalities
- Collision severity limitation system
- Proximity detection
  - Loco to Loco
  - Speed Zoning
  - Traffic Management
- Signalling
  - Signalling from the Guard Car
  - Signalling from the Handset
  - Request/acknowledge feature – eliminating miss-communication or miss-interpretation of signals
- Safer coupling
- ABU Integration
- Dynamic brake testing recording
- Event logging of all whereabouts of loco
- Handheld unit has a tilt (“dead man”) feature
- Automatic light selection; direction of travel dependant
- Door interlocks



# LDIS System Layout





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# Proximity Detection

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 **AngloAmerican** **Speed Zoning**

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 **AngloAmerican** **LDIS Signalling**

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 **AngloAmerican LDIS Reporting**

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# 1000CT CONTROLLER

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## 1000CT is the upgraded version of the 900CT Controller

- Front driven/dual drive capability
- Onboard Pre-use checklist
- Display is upgraded to a graphical display to replace LDIS displays (Improved information to the drivers)
- Operation from the handset. (E.g. Allows drivers to do loco coupling)
- Pedestrian detection system with infringement reporting
- Battery monitoring system
- Rail Condition and Operational Monitoring Camera Modules (Future development)



**1000CT INSTALLATION LAYOUT**



1000CT Control System - Loco Side

BRACKETS

**LOCO SIDE  
INSTALLATION**



**CABOOSE SIDE  
INSTALLATION**



**PLATINUM**

**THANK  
YOU**