Wabtec’s Surface Collision Awareness System (CAS)

The Problem

Why: To assist in mitigating significant vehicle interaction risk like this incident

Consequence: The result of where the Haul Truck Operator can’t see the remote objects due to blind spots

The Wabtec Digital Mine Solution

How: Haul Truck fitted with a PDS with graphics display, cameras, GPS/RF/LFM proximity detection for 360 degree situational awareness. Other vehicles/assets/people also fitted with PDS for 2-way proximity detection.

Cameras

4 cameras provide 360 degree vision around haul truck

Operator Display

Shows location, distance, speed, heading & ID of all remote objects. Audible/voice & visual alerts generated for high-risk interactions.

GPS & V2V Radio

Provides high speed, long range predictive proximity alerts with multiple, dynamic zones

RF Proximity Detection

4 RF units provides 360 degree automatic object detection around haul truck w/ alarming & multiple zones

Outcomes

- Managing VI risk
- Increased Safety
- Cost Avoidance
- Supports add on capabilities (integrated safety+productivity)