

Case Study: Collision Awareness Solution for Hitachi Shovels

Problem: During operations in a coal mine, there has been an increase in incidents between shovels and heavy haul trucks. In one particular incident, a haul truck parked inside the shovels exclusion zone (i.e. for the on-swinging bucket to load the trucks), the rear of the shovel collided with the front RH side of the haul truck.

The operator of the haul truck was shaken but uninjured in the incident. Not only did this cause considerable damage to the haul truck, the significant costs involved with loss of production for both machines had run into hundreds of thousands of dollars.

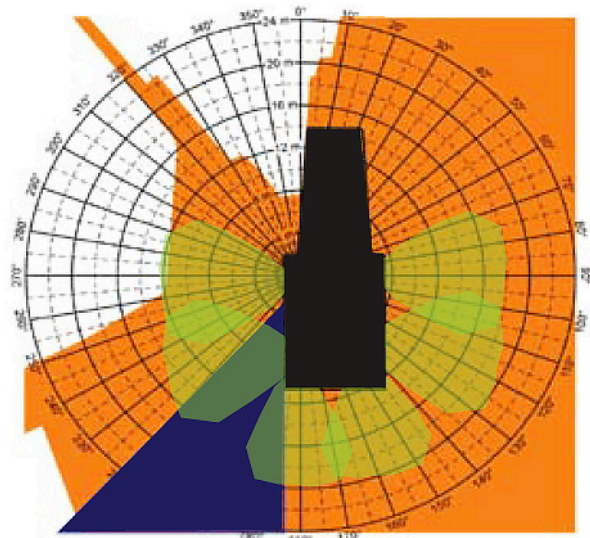
Solution: APS was approached and tasked with implementing a solution to this issue, proposing an install of a heavy-duty close proximity radar system to alert operators of objects or machines in their blind spot. APS was involved throughout the entire process; from system configuration and installation; to training of the operators to ensure competency, operation, and maintenance of the radar system.

APS proposed the install of the PreView Plus Sentry system, which consisted of a 7" monitor, 4 cameras and 6 x Sentry sensors (two sensors were installed to each side of the machine and two sensors were installed to the rear of the machine). PreView Plus cameras were mounted on the left and right of the machine and two cameras were mounted to the rear. This provided a 10m detection zone along both sides and rear corners of the machine to provide visual and audible alerts to the shovel operator, advising them if a haul truck or other obstruction is parked in the exclusion zone.

Goal: The goal was to reduce incidents, improve the work environment for the operators of the shovel and to help prevent further collisions from occurring. The solution implemented has been a success and no further incidents have occurred. APS conducted operator training to all shovel and haul truck operators to ensure all parties understood the systems capabilities. The feedback from management and everyone involved in the project agreed that the installed solution has created a safer and more productive work environment.

[Contact your local APS representative](#) to discuss how we can tailor a solution to meet your needs.

Shovel radar solution blind-spot diagram



Shovel
 Blind Spot
 Mirror Visibility
 PreView Coverage Area



Authorised Importer and Master Distributor

