Railway Industry

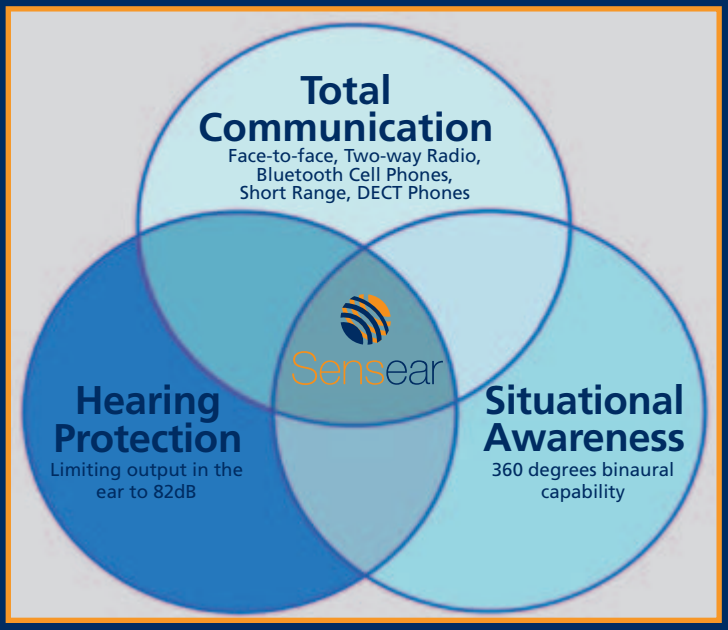
Case Study

Sensear and the Railway Industry

Sensear's world leading technology is solving high noise communication challenges for the Railway industry. This case study specifically highlights the solutions Sensear has delivered to Queensland Rail, one of Australia's leading railway infrastructure and network operators. These solutions can be applied to a broad range of railway operations.

The Importance of Situational Awareness to the Railway Industry

Railway operations are inherently noisy. Railway employees in a large array of job functions are exposed to varying degrees of high noise environments that are potentially dangerous.
More importantly, enabling workers to maintain situational awareness is absolutely critical to the safety of workers.
Historically, accidents related to the railway industry could have been avoided if the worker had been more aware of their surroundings.
Unfortunately, traditional hearing protection solutions (passive ear-plugs and ear muffs) inhibit the ability of workers to be aware of their surroundings, and although they may protect their hearing, they diminish the ability to have situational awareness.



Sensear's Solutions

Because Sensear devices use the ground breaking SENS (Speech Enhancement, Noise Suppression) technology workers can communicate, protect their hearing and remain aware of their surroundings.
The following operations and job functions at Queensland Rail are currently using Sensear devices to solve their high noise communications challenges:

Boggie Shop
- Wheel alignment which is a two person operation (SM1XSR)
- Wheel Manufacture (SP1X for Supervisor blue tooth to DECT Cordless Telephone)
- Forklift operator (SP1X WITH Cable to ICOM Radio)

Fabrication Shop
- Supervisor Communication (SP1X for Supervisor blue tooth to DECT Cordless Telephone)
- Forklift operator (SP1X WITH Cable to ICOM Radio)

Diesel Loco Test Box
- Operators for communication in close proximity in the load box noises over 105db constant (SM1XSR)

Track Maintenance & Repair
- Line Maintenance Engineers and crews (SM1, SP1 and SM1XSR)

Logistics
- Shunting Crews for two person operation (SP1X with cable to ICOM Radios)

Repair Shed
- Shunting Crews for two person operation (SP1X with cable to ICOM Radios)
- Forklift operator (SP1X WITH Cable to ICOM Radio)

Sensear

Hear Speech Stay Protected

Queensland Rail

Client: Dorrien Designs (Track Maintenance Consultants)
for Queensland Rail
Contact: Nick Wheatley

Interview

Interview with Nick Wheatley from Dorrien Designs - Track Maintenance Consultant for Queensland Rail

Sensear: Nick, how long have you been working in this industry?

Nick: All my working life since I was 22 - so about 25 years.

Sensear: What is unique about the environments when doing Railway Track Maintenance that requires special hearing protection?

Nick: The environment is very interesting as it is very noisy, and the machines are continuously moving at 5km per hour with multiple tasks happening at the same time that need to be in sync with each other. To do this we have multiple operators and observers/spotters. These guys need to clearly communicate between the different areas; it may be that we have to shut down a carriage not required for a 100m run or increase tolerance in the alignment carriage, or grind down heavier or even just to tell everyone to stop to have a smoke.

Sensear: What was it about Sensear that motivated your serious consideration?

Nick: The story about Sensear in the Qantas Magazine got me thinking as it was only a few weeks prior that we had a noise survey conducted for the different applications on the TMR and found exposure limits well in advance of the recommended standards.

Sensear: Why is Sensear right for you?

Nick: It works quite simply - we can hook up a two way radio, keep communicating, keep listening to the different noises from the TMR which is the key indicator for when something is going wrong, and at the end of the day feel confident that we have provided great hearing protection, clear communication and situational awareness.

Sensear: Since introducing Sensear what have been the highlights with regard to over all hearing protection and communications effectiveness?

Nick: The guys took a little time to adapt to this new technology as it was previously unheard of and the saying here was "Well that is the way we have always done it" - right or wrong - so we had some education to get the guys to understand that it was OK to go home still being able to hear the nightly news without constant ringing in their ears. Sensear has changed our workplace in many ways and all for the right reasons and it is great to know that we have spent money in Australia which stays here.

Sensear

Hear Speech Stay Protected