

# Shipping Industry

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## Case Study



### Background:

Norce Offshore operate several ships specializing in subsea engineering. They recently signed a seven year contract to supply engineering services to Woodside. Norce recently took delivery of their latest vessel, the Nor Australis. It is a DPS2 vessel with ROV and Diving capabilities and will be used to serve the Australia Pacific region.

### Problem:

In its maiden voyage from Singapore to Australia the Norce engineers experienced the noise in the engine control room for the first time. The control room is adjacent to the engine room and is manned 100% of the time. While noise in the engine room is typically very loud ~ 100 dBA, the control room is required to be at a safe noise level when hearing protection is not used.

Although considered to be a safe, the noise level in the control room was measured to be approximately 80 dBA. At this level the noise is particularly annoying, creates fatigue and makes communication (face to face and over 2-way radio) difficult. The engineers immediately complained about the high level of noise during the initial voyage.

The Sensear SM1 and SP1 provided an immediate solution to the noise problem, with the SENS processing providing an additional 12 dB of noise suppression. The SM1s provided a comfortable noise level in the ear of less than 70 dBA.



Whereas other active hearing protectors (Peltor, 3M, MSA Sordin, Bilsom) do nothing to attenuate noise when the noise level is below 82 dBA, the Sensear units significantly suppressed the noise, reducing worker fatigue. Furthermore, SM1 radio adaptors could be provided for their 2-way radios (Motorola GP328) allowing the engineers to leave their hearing protection on at all times; improving their communication capability.

### Solution:

The Sensear SM1 and SP1 provided a workable solution to Norce Offshore's immediate noise problem. Norce have since expanded the use of Sensear by providing SM1 Ultras and radio adaptors to crew on other vessels.

An added benefit for the Norce engineers was the ability to communicate in the engine room where the noise level is regularly at 100 dBA. With the SM1 Ultra connected to a 2-way radio, the engineers could, for the first time, communicate in the engine room where previously they had relied on hand signals.

### Result:

Worker fatigue due to long term continuous noise exposure has been overcome while maintaining full communication capability. Engineers can now communicate when in extreme noise areas, such as the engine room.

