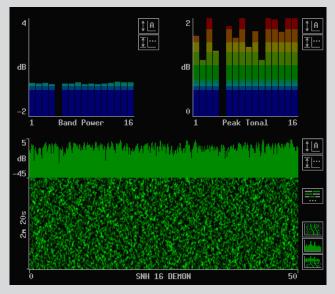


# **Circe** Submarine Self Noise Monitoring System



# Capabilities

- Easy to operate
- Monitor individual machinery state
- Record data for further analysis
- Set and monitor the vessels self noise baseline

Circe is an easy use, accurate system that is designed to monitor and record real-time acoustic data from the Self Noise Hydrophones.

Circe can be correlated with machinery status information and navigation data harvested from the sonar network to:

- Continuously monitor the own-ship self noise signature while at sea
- Immediately detect and therefore reduce the duration and impact of unexpected own ship noise
- Localise own ship noise sources such as:
  - A cavitating propeller
  - Noisy machinery operating within the submarine
  - Any loose or unsecured items
  - External to the pressure hull
  - An object fouling the hull
  - Flow related noise resonances
- Provide the long term noise trend of the machinery through regular and consistent monitoring
- Allow collection of signatures for comparison across the class platforms and over time



... a sound decision

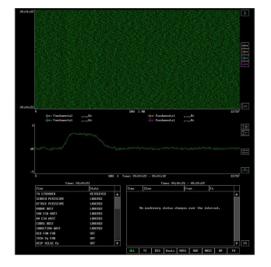
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## **Display machinery status and noise levels:**

- Pumps and Fans
- Engines and Generators
- Coolers and Refrigeration
- Masts and Snorkels

## Variety of Views for Data Analysis:

- LOFAR gram
- DEMON gram
- Amplitude Line Integration (ALI)
- Band Power
- Peak Tonal





## SONARTECH ATLAS Pty Ltd

16 Giffnock Avenue Macquarie Park NSW 2113 Australia 
 Phone:
 +61 2 8484 7400

 Fax:
 +61 2 9888 6144

 www.sonartech.com.au

