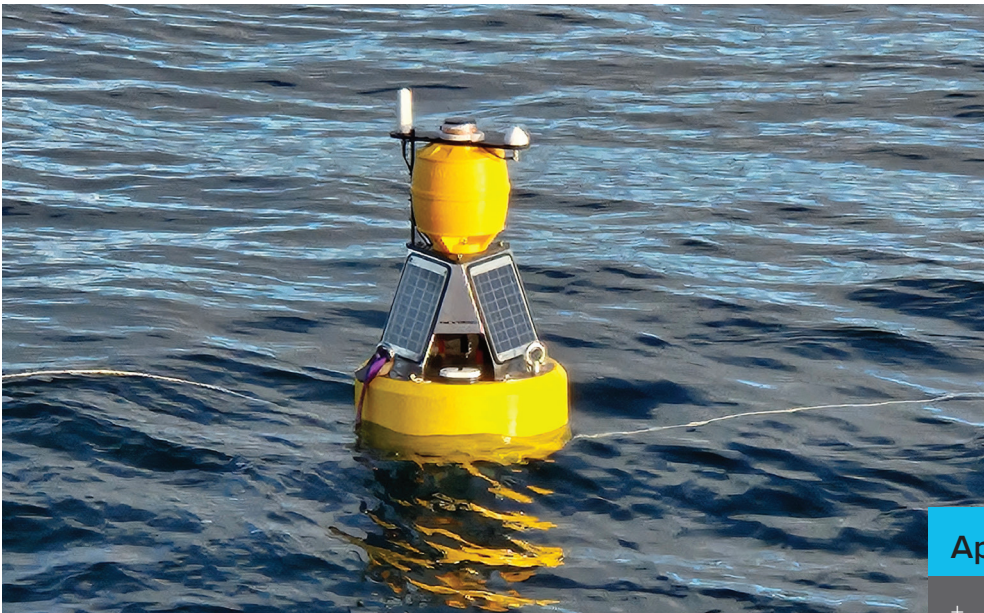


Real-Time Sound Measurement Buoy System

A remote monitoring system that can collect, measure, process and transmit noise monitoring data in real-time.

Our RTSM buoy is a lightweight, compact and scalable solution to collecting noise monitoring data. Data is collected in real-time via a hydrophone deployed beneath the remote buoy, making the set-up, management and collection of data seamless in real time.



Features & Benefits:

- Real-time sound metric recordings
- Reduce reporting turnarounds
- Onboard computation and analysis of sound sources
- Fewer personnel working offshore
- User-friendly dashboard
- Cloud accessible processed values
- Onboard archiving of unprocessed recordings
- Compact - Easily stowed and deployed

Applications

- + Monitoring of offshore pile driving noise
- + Real time monitoring of compliance with noise limits
- + Live management of acoustic emissions during piling

Real-Time Sound Measurement Buoy System

Specification

Power:

- 56Ah Internal Batteries
- 6 Days continuous active state (Recording, Processing and Transmitting)
- Solar Assisted for longer deployments, potentially indefinite in standby
- IP67 Maritime Buoy

Acoustic Specifications:

- Single channel calibrated hydrophone (-210dB re 1V/uPa)
- 48 kHz sampling rate minimum (frequency range 5Hz-24Khz)
- 24-bit resolution
- On-board Audio recording to SD for post-processing and verification

Communications:

- Iridium (global) or 4G GSM (within range of signal)
- GPS

Data Processing:

- The following data points can be processed on the buoy and transmitted live for viewing in real time:
 - T90 Pulse Duration
 - SEL_{SS}
 - SPL_{rms}
 - SPL_{0-pk}
 - SPL_{pk-pk}
 - SEL_{SS} in 31 Third Octave Bands
 - Skewness
 - Kurtosis
- Cloud software created real time alerts when approaching or exceeding a noise limit or threshold
- 5 Remotely programmable active periods
- System standby low-power state
- User adjustable pulse detection thresholds

