TRIGGER AND ALERT SONOBUOY SYSTEM

About Guide Star Engineering, LLC

GSE (est. 2006) is a technology based engineering company. Our staff has over 100 years experience of management, design, development and fabrication skills to meet the needs of industry and government. Our technical disciplines include: Electrical Engineering, Environmental Engineering, Personal Protective Equipment, Mechanical Engineering, Industrial Engineering, Computer and Software Engineering.

Technologies
- In-sensor digital signal processor (DSP)
- Automatic detection and classification of signals
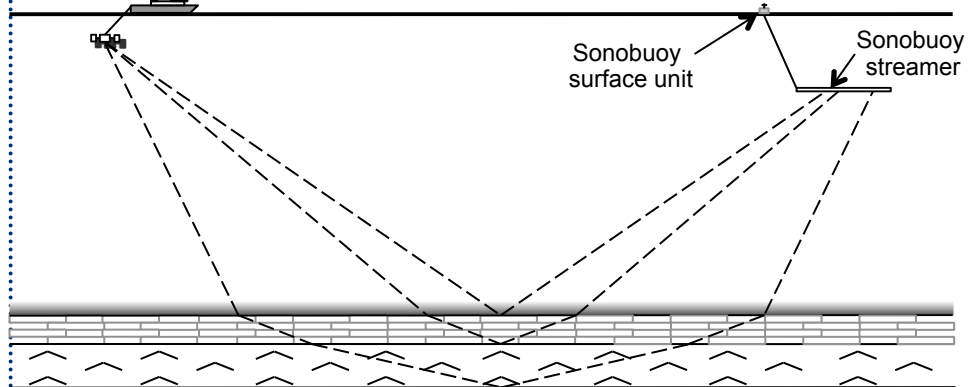- Precision subsea location

Advantages (Features)
- Designed for portability – may be deployed using existing surface ships or airborne systems, expendable or recoverable
- Open new areas to seismic survey - augment or replace streamers
- Real time communications over standard line of site or satellite RF data channels
- Improved compliance with environmental regulations - marine mammal monitoring of areas before survey
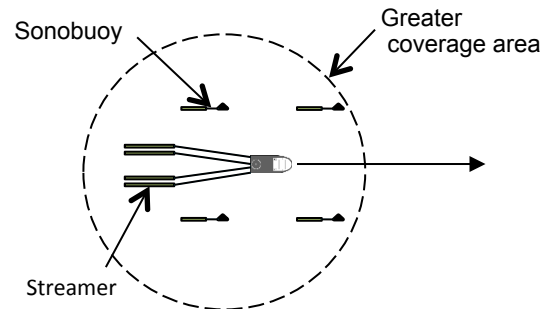- Cost and time savings on the order of a factor of 4x

Open Ocean Seismic and Acoustic Signal Processing

Remote sensor products group developed sonobuoy system technology as a result of advances in automation and miniaturization, that provides cost effective acoustic and seismic data gathering. The focus areas of this technology are subsea seismic survey and marine mammal monitoring. These systems would be deployed in areas of interest before seismic survey. Our solution provides a competitive and reliable autonomous sensor capability.

Seismic Sonobuoy System

Sonobuoy surface unit

Sonobuoy streamer

A field of seismic sonobuoys can collect seismic data and combined with streamer data be used to significantly increase the coverage area of a traditional seismic survey in the same airgun cycle resulting in time and cost savings

Sonobuoy

Greater coverage area

Streamer

Marine Mammal Protection

Guide Star Engineering's TASS remote sensor provides reliable data collection, recording, and in-sensor signal processing in real time and for post-processing. Advanced work is being investigated that will give the buoy the ability to automatically detect, classify, and determine the direction and depth of animals.

Animal Sound