SeaSPY2

Horizontal Transverse Gradiometer v.2

Rigid frame gradiometers are best suited for short-baseline applications where relative positional accuracy is key. Each towfish can be used as a single magnetometer.

Applications

Cable/ Pipeline Survey

A horizontal transverse gradiometer can be effectively used to track cables or pipelines in real-time from relatively high towing altitudes.

The addition of vertical gradiometer data allows accurate measurement of cable/ pipeline burial depth (see SeaQuest Multi Sensor Gradiometer brochure).

Detection of Small Ferrous Targets

Short-baseline gradient, whether measured in transverse or longitudinal direction, is useful for eliminating geological and diurnal interference, and emphasizing near-surface objects in real-time so that recovery efforts can be started while the survey is in progress, rather than waiting for the Total Field data to be processed.

v.2 Update: Sleeker, stronger.

Our new composite frame is a sleeker design that reduces drag by a factor of 10. It's lighter to carry on land but actually stronger.

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Marine Magnetics

SeaSPY2

Longitudinal Gradiometer

Longitudinal gradiometers offer the largest variation in available baselines, from 1.5m to more than 500m. Long baselines provide superior gradient measurement sensitivity and increased detection ranges. They're also hydro dynamically stable when deployed. Each towfish can be used as a single magnetometer.

Applications

Shipwreck, Search and Salvage

Medium baseline measurement with a longitudinal gradiometer eliminates interference from deeper geological bodies, while highlighting near-surface magnetic sources like steel hulls, boilers or engines.

Smaller sources such as anchors or cannons will require a shorter baseline, and lower towing altitude.

Environmental Survey

Medium baseline measurement with a longitudinal gradiometer can highlight shallow magnetic sediments, while eliminating deeper geological influences.

The baseline should be on the order of magnitude of the expected towing altitude.

Exploration Geophysics

Long-baseline measurement with a longitudinal gradiometer is ideal since the bodies of interest are often far from the sensor, and produce very small gradients.

The baseline should be on the order of magnitude of expected depth-to-source.

Above: Towfish designed for longitudinal gradiometer configuration have an addition tow connector at the tail, to allow for interfish cable.

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