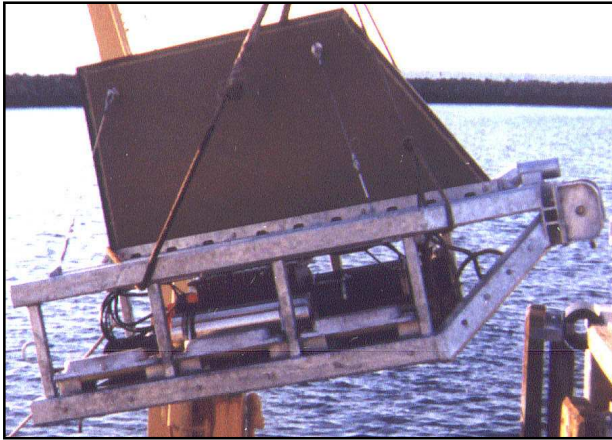


REDAS – RESISTIVITY DATA ACQUISITION SYSTEM



REDAS is a special purpose remotely operated vehicle (ROV) that provides enhanced cable burial assessment information during the geophysical survey at a lower cost and prior to cable manufacture. REDAS is dragged along the seafloor cable route utilizing direct current electrical resistivity and is designed to operate off vessels-of-opportunity using standard handling equipment and deep sea coaxial cables.

REDAS is used to complement conventional geophysical surveying techniques to provide an improved prediction of the geotechnical characteristics of the top few meters of seafloor sediments. This information will improve the optimization and cost effectiveness of the cable manufacturing and installation processes.

APPLICATIONS

- Cable Route Surveys
- Pipeline Route Surveys
- Geohazard Surveys
- Geological Investigations
- Dredge Material Investigations

SPECIFICATIONS

GENERAL

Size: 1.2 m wide, 2.4 m long, 0.6 m tall w/o sail, 1.5 m tall w/ sail.
Weight: 500 kg
Depth Rating: 2500 meters
Power Requirements: 240 VAC, 1000 VA
Cable Length: 5000 meters

PRIMARY SENSORS

Resistivity
Transmit current
Received voltages (7 pairs)
Conductivity – FSI MicroCTD
Temperature - FSI MicroCTD
Depth - FSI MicroCTD
Video
Color, full frame rate (future)
Audio hydrophone (future)
Extra RS-232 channel - for magnetometer, scanning sonar, SBP, etc.
Responder channel (optional)

SECONDARY SENSORS - ANALOG

Altimeter (future)
Compass
Fluxgate magnetometer - 3 axis
Tilt - 2 axis
Power supply voltage & current
Cable tension (optional)
Fluorometer (optional)

SECONDARY SENSORS - DIGITAL

Bottom contact (optional)

CONTROLS

Light 1 on/off (future)
Light 2 on/off (future)
Camera on/off (future)
Pan & Tilt - 2 axis (future)
Resistivity transmitter on/off

TOW CABLE

UNOLS 0.68 inch coax
Maximum length - 5,000 m