SIO Portable MCS System
Recent Activities

09 Dec 2018
Lee Ellett, Manager Shipboard Technical Support, Scripps Institution of Oceanography
Equipment

Hydrophone Streamer

• Geometrics GeoEel Solid (New 2018)
  • 6.25m group spacing
  • 48 Channels, 6 active sections
  • Increased tow leader length to 170m

• Liquid GeoEel (2005)
  • 12.5m group spacing
  • 48 Channels, 6 active sections
Equipment

Acoustic Sources

• Sercel GI 210
• Typical 45/105, True GI
• 3 sources in inventory
Protected Species Mitigation

- Big eyes
- Night vision devices
- Reticule binoculars
Data Acquisition System

- Seismic Recorder
- Source Controller
- Navigation
- Realtime Scripts
- Bird Controller
Vessels

R/V Roger Revelle (SIO)
R/V Melville (SIO)
R/V Thomas G. Thompson (UW)
R/V Atlantis (WHOI)
R/V Hugh R. Sharp (UD)
R/V Endeavor (URI)
R/V Wecoma (OSU)
RRS James Cook (NERC)
B/O Francisco de Ulloa (CICESE)
Instrumentation support for the evaluation of proposed International Ocean Discovery Program drilling sites
Locate drill sites to obtain continuous records of N. Atlantic climate change.

AT40-03: IODP Site Survey

Figure provided by Mitch Lyle
AT40-03: IODP Site Survey, Deck Configuration
SIO Portable Multi-Channel Seismic System
16 Channel Streamer Arrangement AT40-03
SIO Portable Multi-Channel Seismic System
72 Channel Streamer Arrangement AT40-03

Note:
Green Indicates GeoEel Solid 6.25m System Components
Blue Indicates GeoEel Silicone Filled 12.5m System Components
Contributions to Mid-Atlantic Resource Imaging Experiment

- Gas hydrates + free Gas
- Fill in gaps in modern MCS data
- Provide data for non-hydrate CMGP goals

Figure provided by the USGS
SIO Provided Resources

- Solid and Liquid GeoEel
- Streamer winches
- Source winches
- 2 GI Array
- Subset of PSO equipment
- Geophysical Engineer (Kolby Pedrie)
Looking Forward

89 days of portable MCS scheduled for next year on R/V *Thomas G. Thompson*

Propose additional equipment to NSF Oceanographic Instrumentation program

Explore research and training opportunities