Seafloor mapping for onshore/offshore bedrock correlation in offshore basins, western Newfoundland

PEEP Workshop
October 23, 2013
Demonstrate the benefits of high resolution multibeam sonar and sub-bottom profiler data to assist with mapping submarine bedrock trends, structures (faults, fold axes) and features (gas vents) and aid interpretation of conventional seismic and potential field (aeromag/gravity) data.
‘The shoreline is an accident of history’.
Brian Bornhold, GSC-Pacific
Water depth

Multibeam sonar, Conception Bay, Newfoundland
Acoustic backscatter

Multibeam sonar, Conception Bay, Newfoundland
Knudsen 4-channel CHIRP hull mounted sub-bottom profiler
Project objectives (cont’d)

- To realize maximum value from existing geophysical data
- To produce publicly accessible data and reports for use in evaluation and planning for future energy opportunities offshore western NL
- To build capacity at the Marine Institute
- To encourage partnerships between project participants.
Project partners

- Marine Institute, Centre for Applied Ocean Technology
- NL Research and Development Corporation (RDC)
- Natural Resources Canada (withdrew March 2012)
- NL Department of Natural Resources
- University of Alberta, Department of Earth and Atmospheric Sciences
- Canadian Hydrographic Service
Anticipated outcomes

- Seabed data (bathymetry, backscatter, sub-bottom) to support offshore geoscience and other applications (e.g. benthic habitat mapping)
- Reduce exploration risk and attract industry attention to the region
- Accelerate MI efforts to deliver proven ocean mapping capability (faculty and students)
Progress update

- Initial MI data collection October 2011
- NRCan withdrawal from project March 2012
- New PI (John Waldron, University of Alberta) and graduate student (Morgan Snyder) confirmed July 2013
- PEEP funding secured August 2013
- Multibeam sonar and sub-bottom profiler systems moved from MV Atlanticat to MV Anne S. Pierce August 2013
For information...

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