

Programme

SHALLOW SURVEY 2012

6th International Conference on High-Resolution Surveys in Shallow Water

Monday 20 February

8:30am – 12:30pm

Hosted Workshops: (Telstra Clear Centre, Te Papa)

CARIS: New methods for processing bathymetric and sonar data

RESON: PDS2000 software and high resolution survey

1:00pm - 5:00pm

Hosted Workshops: (Telstra Clear Centre, Te Papa)

CARIS: New methods for processing bathymetric and sonar data (continued)

RESON: PDS2000 software and high resolution survey (continued)

QPS BV: New functionality in QINSy, survey software

Triton: Integrated data processing and interpretation with Triton's new Perspective software

5:00pm

Icebreaker Reception Mac's Brewbar

Date: Monday 20 February

Time: 5.00pm – 7.30pm

Venue: Mac's Brewbar, Cnr of Taranaki and Cable Sts

Dress: Casual

Cost: One ticket is included in each full registration;
additional tickets may be purchased at the registration desk
subject to availability.

Kindly sponsored by



Tuesday 21 February

8:00am	Registration and information desk opens
9:00am – 9:30am	Powhiri (Maori Welcome)
9:40am	Opening <i>Hon Maurice Williamson, Minister of Land Information</i>
10:00am	Morning tea
10:30am	CEO's – <i>Jan Pearce (acting) LINZ, John Morgan NIWA, Alex Malahoff GNS</i>
11:15am	Keynote 1 From whence we've come and where we may be going <i>Larry Mayer, CCOM</i>
12:00pm – 1:00pm	Lunch
	Session 1 – Common Dataset
1:00pm	Bathymetry and backscatter data from wellington harbour acquired with a wide swath phase measurement sonar system. Results, comparisons and discussion <i>Peter Hogarth, Kongsberg-GeoAcoustic</i>
1:20pm	Processing and 3d visualization of the common dataset by the ifremer software package Sonarscope® <i>Jean-Marie Augustin, Ifremer</i>
1:40pm	The EM 2040 common data set and enhanced data quality by reprocessing with true heave signal and precise point positioning <i>Berit Horvei, Kongsberg</i>
2:00pm	Interactive 4-d visualization and analysis of multi-sensor, multi-resolution data sets <i>Lindsay Gee, QPS</i>
2:30pm – 3:00pm	Afternoon tea
	Session 2 – Seismics
3:00pm	Chirp subbottom-profiling and magnetic surveying of the shallow water Bay Of Islands and linked 3d-visualisation datasets <i>Bryan Davy, GNS</i>
3:20pm	Benefits of utilising a state of the art software product for processing & interpreting seismic shallow water data sets <i>Robert Carsley, CODA</i>
3:40pm	Applying novel sub-bottom boomer technology to surveying the submerged wellington fault. <i>Gavin Willoughby, Applied Acoustics</i>
4:00pm	Fault characteristics and recent holocene activity on the wellington fault in Wellington harbour using high-resolution geophysical and coring techniques <i>Phil Barnes, NIWA</i>
5:00pm – 7:00pm	Exhibition opening drinks Oceania, Te Papa

Wednesday 22 February

8:00am	Registration and information desk opens
8:30am – 9:00am	Pre-session coffee
9:00am	Keynote 2 High-resolution lakebed and water column survey of Lake Rotomahana, New Zealand: rediscovery of the Pink and White Terraces and associated geothermal activity <i>Cornel de Ronde, GNS</i>
	Session 3 – Target Detection
9:30am	The evolution of multibeam acoustics for multi-use hydrographic based applications <i>Chris Malzone, Reson</i>
9:50am	Automatic contact detection in side-scan sonar data <i>Rebecca Quintal, SAIC</i>
10:10am	Object detection for underwater port security <i>Lloyd Huff, Triton</i>
10:30am – 11:00am	Morning tea
	Session 4 - Uncertainty
11:00am	Use (and potential abuse) of uncertainty in hydrography <i>Brian Calder, CCOM</i>
11:20am	The validation of the uncertainty model for Klein's Hydrochart 5000 Bathymetry Sonar <i>Yuhui Ai, Klein L3</i>
11:40am	Bathymetry measurement accuracy of multibeam echosounders : design, implementation and first results of an objective quality factor <i>Xavier Lurton, Ifremer</i>
12:00pm	MultiBeam echosounder uncertainty measure: evolution and recent developments <i>Eric Maillard, Reson</i>
12:30pm – 1:30pm	Lunch
	Session 5 – Standards & Specifications
1:30pm	IHO S100 for industry <i>Robert Ward, IHB</i>
1:50pm	The changing needs of hydrographic survey specifications and standards for NZ <i>Stuart Caie, LINZ</i>
2:10pm	New Zealand's SDI cookbook <i>Geoff O'Malley and Richard Murcott, LINZ</i>
2:30pm	Expanding customer base using high resolution sonar in a port environment <i>J Pinder, PLA</i>

3:00pm – 3:30pm

Afternoon tea

Session 6 – Quality

3:30pm

Greater density data doesn't necessarily translate to greater quality. OG Rock - a case example
Peter Kenshole, AHS

3:50pm

Quality vs. quantity: optimising alb performance to meet survey requirements
Hugh Parker, Fugro LADS

4:10pm

Is all multibeam backscatter the same? A comparison of the backscatter from the different multibeam systems from the shallow survey dataset
Duncan Mallace, NetSurvey

4:30pm

High-resolution surveys of drinking water reservoirs for water storage assessment
Tom Waddington, Substructure Inc.



Thursday 23 February

8:00am	Registration and information desk opens
8:30am – 9:00am	Pre-session coffee
9:00am	Keynote 3 NZ Bathymetry – mapping the farm <i>Adam Greenland, LINZ</i>
	Session 7 – Bathymetry
9:30am	Bathymetry user needs and vertical datum harmonisation research <i>Nathan Quadros, CRCSI</i>
9:50am	Progress towards the seamless combination of bathymetric and topographic data in New Zealand <i>Matt Amos, LINZ</i>
10:10am	Implementation of a bathymetry database for Geoscience Australia <i>Christian Fellingner, CARIS</i>
10:30am – 11:00am	Morning tea
	Session 8 – Very Large Data Volumes
11:00am	Automated bottom feature selection using multibeam and lidar datasets <i>Matthew Thompson, NAVOCEANO</i>
11:20am	Variable resolution grids: implementation and applications <i>Mark Masry, CARIS</i>
11:40am	Improvement of spot sounding selection for nautical charts and encs <i>George Spoelstra, Atllis</i>
12:00pm	Reconciling the apparently irreconcilable: new paradigms in bathymetric data management <i>Bertrand Baud, ESRI</i>
12:30pm – 1:30pm	Lunch
	Session 9 – Water Column
1:30pm	What's the difference? A comparison of water column data to bathymetry from the sonar bottom detection in the Shallow Survey 2012 common dataset <i>Erin Heffron, IVS 3D Inc.</i>
1:50pm	Comparison of least depths obtained during wreck investigations using Wire Sweep, Multibeam Echosounder, Side Scan Sonar and Multibeam Echosounder water column data <i>David Parker, UKHO</i>
2:10pm	Multi-dimensional water column analysis as a catalyst for sustainable hydrographic survey <i>Corey Collins, CARIS</i>
2:30pm	MBES performance in the mapping of explosive remnants of war and targeted WWII shipwrecks <i>Matt Wray, RNZN</i>

3:00pm – 3:30pm

Afternoon tea

Session 10 – Processing

3:30pm

Hydrographic data processing on a robust, network-coupled parallel cluster
Brian Calder, CCOM

3:50pm

Coastal Zone Mapping and Imaging Lidar (CZMIL): Advancing coastal remote sensing
Christopher Macon, USACE

4:10pm

Creation of scale-independent Enhanced Bathymetry Attributed Grid (EBAG) surfaces
Matthew Thompson, NAVOCEANO

4:30pm

Shallow inland waters surveying – public tender experiences from Eastern Finland
Juhani Laaksonen, Meritato

7:00pm

Conference Dinner

[Te Wharewaka o Poneke](#)

Date: Thursday 23 February

Time: 6:30pm - late

Venue: Te Wharewaka O Poneke

Dress: Smart

Cost: One ticket is included in each full registration; additional tickets may be purchased at the registration desk subject to availability.



Friday 24 February

8:00am	Registration and information desk opens
8:30am – 9:00am	Pre-session coffee
9:00am	Keynote 4 Using remote-sensed data for quantitative shallow water habitat mapping in New Zealand <i>Geoffroy Lamarche, NIWA</i>
	Session 11 – Habitat 1
9:30am	Development of habitat mapping process in Finland <i>Jarmo Ahonen, Meritao</i>
9:50am	Backscatter and seafloor acoustical properties of Wellington harbour; preliminary results and potential <i>Arne Pallentin, NIWA</i>
10:10am	Combining angular and spatial information from multibeam backscatter data for improved unsupervised acoustic seabed segmentation <i>Alexandre Schimel, MetOcean</i>
10:30am – 11:00am	Morning tea
	Session 12 – Habitat 2
11:00am	Shallow water seafloor imaging and classification using active-passive data fusion algorithms <i>Joong Yong Park, Optech</i>
11:20am	Mapping coastal benthic biodiversity <i>Judi Hewitt, NIWA</i>
11:40am	A new technique for modelling swath acoustic backscatter of the seafloor <i>Jiashun Yu, GNS</i>
12:00pm	TBC
12:30pm – 1:30pm	Lunch
	Session 13 – Survey Platforms
1:30pm	Dual Head Reson 7125 Integration on NOAA's new SWATH vessel Ferdinand R. Hassler <i>Briana Welton, NOAA</i>
1:50pm	A workflow description for hydrographic data acquired from an AUV <i>Douglas Cronin, NAVOCEANO</i>
2:15pm	Conference wrap-up <i>Ray Wood, GNS</i>
	Conference closes