

Session 6: Workshops, Demonstrations & Technical Visits

The following optional workshops, demonstrations, discussion forums and visits are available during Session 6. Please register in advance for each activity you wish to participate in by adding your name to the relevant list(s) which are posted near the Registration Desk in the Main Concourse.

Visit to Aberdeen Harbour *

Host: Aberdeen Harbour Board
Time: 1400 to 1600
Location: Marine Operations Centre and on board *Sea Herald*

The group will be split into three and then participate each of the three aspects of this visit in rotation:

- A quick introduction to and tour of the Aberdeen Harbour and the Marine Operations Centre (MOC)
- A presentation on surveying in Aberdeen Harbour
- A look at the AHB multi-purpose vessel *Sea Herald* equipped for multibeam surveys and bed levelling

Numbers are strictly limited. Please ensure that you report to the designated bus at least 5-10 minutes before the specified departure time.

Robust positioning and orientation with POS MV and POSpac MMS

Host: Applanix
Time: 1415 to 1500 1600 to 1645
Location: AECC Room 16

This workshop discusses the robust and accurate geo-referencing and motion compensation provided by Applanix, enabling the hydrographic surveyor to realise the ultimate in performance from their investment in multibeam technology. The very latest developments in both POS MV and POSpac MMS will be introduced, describing how these help to ensure optimal results, regardless of sea conditions, location or GNSS environment.

What's new in CARIS' bathymetric processing & data management solutions?

Host: CARIS
Time: 1415 to 1515 1615 to 1715
Location: AECC Room 5

The CARIS workshop will cover the latest functionality in the new HIPS and SIPS 9.0. Highlights include the new interface and additional functionality including support of multiple navigation sources and the new product creation tools. Also see the New Navigation and Attitude Editors, the new and improved Mosaic functionality and Feature Palette for target selection and event editing on bathymetric surfaces and mosaics.

The workshop will also cover the latest version of Bathy DataBase including the use of automation tools and APIs allowing users to create their own custom workflows and products. Integration between CARIS HIPS and SIPS and Bathy DataBase will be showcased demonstrating shared functionality and seamless workflows.

Topics will include new areas of development around data access, integration and exchange in CARIS applications including an introduction to the CARIS Python API and the new Coverage SDK. These new developer tools will open up a world of possibilities around raster and point cloud data creation and management in CARIS.

An introduction to C-Nav's IMCA-compliant QC displays

Host: C-Nav
Time: 1415 to 1500 1600 to 1645
Location: AECC Room 9

The traditional metrics for GPS position quality, DOP, number of satellites, range residuals, and signal to noise, are becoming less reliable with the move to multi-constellation (GPS + GLONASS) systems. This is not because the GNSS solution is less reliable, but because the traditional quality measurements are almost consistently good. For example HDOP rarely rises above two and the number of satellites used is typically over 15. With so many ranges available, receivers can do complex internal integrity monitoring (RAIM) to reject individual ranges where an error is suspected.

Another factor has been the general acceptance of the PPP (Precise Point Positioning) method of correcting the error in the GNSS broadcast parameters. This method corrects the sources of the GNSS error in clock and orbit, rather than the tradition method which tried to correct the individual measured ranges. This resulted in much less relevance being able to be placed on the range residuals and spatial de-correlation.

The industry, in the form of a joint IMCA/OGP committee, produced a new guidance document in June 2011 for the quality control of GNSS positioning. (Geomatics Guidance Note 19 IMCA S015). This document set out to define more up to date definitions of GNSS quality.

C-Nav's interpretation of this guideline is described in this workshop.

IBSC Standards of Competence stakeholder workshop

Host: FIG/IHO/ICA International Board for Standards of Competence for Hydrographers and Nautical Cartographers
Time: 1415 to 1600
Location: AECC Fleming Auditorium

The aims of this workshop are to update the offshore community on the new IBSC Standards of Competence and obtain stakeholder feedback on syllabus, duration, competencies and course delivery. The new Standards are due to be adopted in 2015.

This workshop will be chaired by Nicolas Seube and Gordon Johnston.

Demonstration of multi-channel digital video recorder for subsea inspection

Host: Forum Subsea Rentals | VisualSoft
Time: 1500 to 1545 1645 to 1730
Location: AECC Room 15

VisualSoft is a world leading developer of digital video and data acquisition systems for the subsea industry. The VisualSoft Suite is a modular collection of software applications designed to acquire, edit and review subsea video and data using a common user interface. It is suitable for any type of subsea video inspection where large volumes of video must be recorded from one or more cameras and synchronised along with other data sources.

This workshop will involve a step-by-step demonstration of how to configure our digital video recorder, VisualDVR, and will focus on set-up of video profiles, video overlay and configuration of our integrated anomaly-recording tool, VisualEvent Logger. We will also include a brief overview of the other applications in the VisualSoft Suite.

Reducing errors and stress offshore: having the right package

Host: NCS Survey Ltd
Time: 1415 to 1445 1600 to 1630
Location: AECC Room 15

Development of a new navigation software package by NCS in conjunction with Norcom Technologies for use in the heavy lift and renewables industries, making sure projects are set up, operated and reported correctly.

Errors: Software package has been developed taking into account many years of experience to reduce the possibility of errors taking place during the initial set up and subsequent operational use of the software package.

Stress: Clear precise installation data and subsequent reporting practices to meet the ever-demanding quick timespan for reporting data to the clients.

Marine charts and vector overlays on the web

Host: Norcom Technology
Time: 1515 to 1545 1700 to 1730
Location: AECC Room 16

This workshop will include a demonstration of Norcom Technology's web-based charting system and the ability to overlay additional layers of data including wrecks, wellheads, cables, pipelines, wind turbines and other seabed obstructions.

Acquire, process, visualise and share: the perfect data workflow

Host: QPS
Time: 1500 to 1600
Location: AECC Room 17

Acquisition software packages like QPS QINSy facilitate simultaneous data collection e.g. from multi-platform/multi-sensor projects. Advanced 4D visualisation software like QPS Fledermaus is key to efficiently bringing together many different datasets for analysis, and to create and distribute the project deliverables. Nestled in between acquisition and visualisation is of course data-processing and Hydro14 we will showcase our recent efforts that significantly strengthen the processing tools we offer.

Leveraging more business value from GIS *

Host: Shell UK Ltd
Time: 1430 to 1515 1545 to 1630
Location: Visualisation Centre, Shell UK E&P

For Shell, GIS is a key differentiator, a key technology applied throughout the E&P life cycle, embedded into workflows in almost all disciplines within the group, providing significant business value, whether by desktop software or increasingly via web-based GIS and moving towards Mobile GIS.

This demonstration will showcase the GIS environment at Shell and how this technology can deliver business value such as providing new business insights through integration of trusted data, increasing the effectiveness of business workflows, improving the efficiency of technical professionals and sparking new ideas and imagination on how we can leverage more business value out of data.

Numbers are strictly limited. Please ensure that you report to the designated bus at least 5-10 minutes of the specified departure time.

LBL - back to basics

Host: Sonardyne International
Time: 1515 to 1545 1700 to 1730
Location: AECC Room 9

There have been many developments with LBL over the past 35 years and it is now used for many applications including AMT monitoring and Sparse LBL (using the Sonardyne SPRINT system). However, all these techniques rely on a good grasp of the basics of LBL acoustic positioning and Fusion. This session introduces the basic concepts of LBL operations and the main considerations offshore operators and onshore planning staff need to consider when preparing and undertaking an LBL project.

Tide estimation using GNSS

Host: Veripos
Time: 1400 to 1445
Location: AECC Room 17

This workshop will explore the use of high accuracy GNSS positioning for real time tide determination and will present data collected in actual offshore operations showing typical performance that can be achieved. It will also examine how the height of the GNSS antenna on a vessel is reduced to the actual sea surface as this is essential for determining an accurate and reliable tide value. The different methodology for deriving a tide value will also be covered in addition to the different vertical references that are used in offshore operations.

GNSS Constellations

Host: Veripos
Time: 1615 to 1700
Location: AECC Room 17

This purpose of this workshop is to provide an update on the status of the four global GNSS constellations (GPS/GLONASS/Beidou/Galileo) and regional satellite navigation systems. It will also examine the benefits of each.

* Travel arrangements for offsite visits

Bus transport will be provided to and from the location(s) for these technical visits. Participants must ensure that they are ready to leave and waiting near the coach bays immediately in front of the main conference entrance to AECC by the relevant time specified below. If you are late the bus may need to leave without you.

Aberdeen Harbour Board	1330
Shell Visualisation Centre 1	1345
Shell Visualisation Centre 2	1500

Delegates leaving on the 1330 and 1345 buses will be provided with packed lunches.

Session 6: Workshops, Demonstrations & Technical Visits

Visit to Aberdeen Harbour Host: Aberdeen Harbour Board	Offsite	1400 to 1600*							
Robust positioning and orientation with POS MV and POSpac MMS Host: Applanix	Room 16	1415 to 1500			1600 to 1645				
What's new in CARIS' bathymetric processing and data management solutions? Host: CARIS	Room 5	1415 to 1515			1615 to 1715				
An introduction to C-Nav's IMCA-compliant QC displays Host: C-Nav	Room 9	1415 to 1500			1600 to 1645				
IBSC Standards of Competence stakeholder workshop Host: FIG/IHO/ICA IBSC	Fleming	1415 to 1600							
Demonstration of multi-channel digital video recorder for subsea inspection Host: Forum Subsea Rentals VisualSoft	Room 15			1500 to 1545				1645 to 1730	
Reducing errors and stress offshore: having the right package Host: NCS Survey Ltd	Room 15	1415 to 1445			1600 to 1630				
Marine charts and vector overlays on the web Host: Norcom Technology	Room 16			1515 to 1545				1700 to 1730	
Acquire, process, visualise and share: the perfect data workflow Host: QPS	Room 17			1500 to 1600					
Leveraging more business value from GIS Host: Shell UK Ltd	Offsite	1430 to 1515*			1545 to 1630*				
LBL - back to basics Host: Sonardyne International	Room 9			1515 to 1545				1700 to 1730	
Tide estimation using GNSS Host: Veripos	Room 17	1400 to 1445							
GNSS Constellations Host: Veripos	Room 17						1615 to 1700		

■ = Refreshment Break

■ = Duration of workshop at AECC

■ = Duration of visit - buses will leave/return up to 45 minutes either side of these times