

NOC Workshops and Seminars



Seminar Room, 4th Floor NOC

FREE TO ATTEND

The National Oceanography Centre (NOC) are showcasing how its cutting edge scientific research, technology development and world-class facilities can be used to underpin the global ocean industry by helping to solve the many challenges faced as our economies become increasingly reliant on our oceans.



National Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

Throughout the three days of Ocean Business, the NOC will be hosting workshops and seminars highlighting how the work of the NOC can help with such issues as the decommissioning of the 475 oil and gas installations in UK seas, enable developing nations to conduct scientific research in their oceans and coastlines in an affordable way to support their economies and conduct surveys of deep ocean installation sites prior to construction.

ocean
BUSINESS 17

Tuesday 4 April

10:30 to 11:30

Fix03 innovation meets industry

One to one meetings with innovative companies operating in ocean observation to identify barriers to commercialisation. Organised by SLR Environmental Consulting (Ireland), a partner in the Fix03 Horizon 2020 project. The Fixed point Open Ocean Observatory network (Fix03) seeks to integrate European open ocean fixed point observatories and to improve access to these key installations for the broader community.

12:00 to 13:00

South Coast Marine Cluster

- Access to world-class institutes and sector-leading, innovative companies

The South Coast Marine Cluster builds on a rich maritime heritage, hundreds of kilometres of coastline, world-renowned research institutions and a large and growing network of sector-leading, innovative marine companies. You can work with the cluster to underpin and support your business activities

13:30 to 14:30

NOC sensor and instrumentation development and future roadmap

Prof Matt Mowlem, Head of NOC's Ocean Technology and Engineering Group will be presenting NOC's Sensor & Instrumentation Development and future roadmap. The group develop sensor and instruments for environmental monitoring and engage industry in a variety of ways, including licensing technology and collaborative R&D projects. 2017 will be another key year, seeing NOC developed technologies made available commercially through partners and deployed on marine autonomous systems, landers, moorings and platforms for science. This presentation will highlight the group's latest work and give a view on future direction.

15:00 to 16:00

Unlocking the power of X-Band as a coastal development and management tool

Shore-based marine radar systems have recently proved to be an excellent tool for gathering a wealth of hydrographic, hydrodynamic and environmental data for a variety of scientific and industrial applications. Following significant research and development effort at The NOC with other partner institutions, a single marine radar sensor can gather information on; subtidal bathymetry down to 30-50m, near-surface currents, intertidal topography, wave spectra and wave statistics. Along with this crucial hydrographic data, the radar can provide information on bird and marine mammal activity in the area while continuing to act as a vessel traffic observation and management tool. This session will provide an overview of the capabilities and services provided by The NOC and Marlan Maritime Technologies.

Wednesday 5 April

10:30 to 11:30

Lithium sulfur pressure tolerant batteries for marine autonomous systems

As part of an innovate UK project, the NOC is working with Steatite, Oxis and MSubs to develop a pressure tolerant battery pack for Marine Autonomous Systems and other deep sea applications, using novel lithium sulfur technology. You will be able to hear about the latest developments on the project and discuss your potential user needs from this innovative new technology that offers extended battery life and improved safety over current lithium batteries on the market.

12:00 to 13:00

Decommissioning of oil and gas installations

There are 475 oil & gas installations in UK seas that will have to be decommissioned. By 2018 over 50 of these will be approaching or entering decommissioning. The OSPAR Convention prohibits the dumping, and leaving wholly or partly in place, of most offshore installations

(OSPAR Decision 98/3), although some large structures are exempt (derogation cases). Given the large number of impending decommissioning cases, there is a clear need for a highly efficient survey and monitoring procedure that limits potential costs but also fits the regulators' needs. Recent advances in marine autonomy offer the prospect of substantial efficiency gains over current practise, but now require the development of effective and efficient approaches for decommissioning monitoring, which will be provided by this project.

13:30 to 14:30

EMS0dev technology workshop

The technology workshop will briefly present the work carried out by EMS0dev with regard to the design, integration and trial deployments of the project monitoring equipment designed for deployment on a variety of subsea installations such as in-situ observatories and moorings. Once the EMS0dev overview has been made the floor will be opened to attendees with the aim of collecting views from the ocean observing community and wider stakeholder/end-user communities. Further background information on EMS0dev and the EGIM (EMSO Generic Instrument Module) is available on the website: www.emsodev.eu

15:00 to 16:00

Partnership for Observation of the Global Ocean (POGO)

Presented by Professor Ed Hill, Executive Director of the National Oceanography Centre and recent member of the POGO Executive Committee. For more than a decade, the Partnership for Observation of the Global Oceans, POGO, has served as a forum for leaders of major oceanographic institutions around the world to promote global oceanography, particularly the implementation of international and integrated global ocean observing systems. POGO is an international network of collaborators who foster partnerships that advance efficiency and effectiveness in studying and monitoring the world's oceans on a global scale. Through its efforts, POGO has promoted observations underpinning ocean and climate science, interpreted scientific results for decision makers, provided training and technology transfer to emerging economies, and built awareness of the many challenges still ahead.

Thursday 6 April

10:30 to 11:30

Marine Data – translating research models into applications

The NOC produces modeled data for ocean research, at this session they'll be discussing how you can utilise this data for industry applications.

12:00 to 13:00

Arctic Shipping Lane

The rapid Arctic summer sea ice reduction in the last decade has led to debates in the maritime industries on the possibility of an increase in cargo transportation in the region. Average sailing times on the North Sea Route along the Siberian Coast have fallen from 20 days in the 1990s to 11 days in 2012– 2013, attributed to easing sea ice conditions along the Siberian coast. However, the economic risk of exploiting the Arctic shipping routes is substantial. Here a detailed high-resolution projection of ocean and sea ice to the end of the 21st century forced with the RCP8.5 IPCC emission scenario is used to examine navigability of the Arctic sea routes. In summer, opening of large areas of the Arctic Ocean previously covered by pack ice to the wind and surface waves leads to Arctic pack ice cover evolving into the Marginal Ice Zone. The emerging state of the Arctic Ocean features more fragmented thinner sea ice, stronger winds, ocean currents and waves. By the mid 21st century, summer season sailing times along the route via the North Pole are estimated to be 13–17 days, which could make this route as fast as the North Sea Route. The NOC will present analysis of the Arctic navigational hazards from sea ice, waves, icebergs and bergy bits (growlers) and discuss the requirements the hazards monitoring system for the navigation in the Arctic. Lastly, the assessment of the potential oil spills impacts on the Arctic environment from the ship accidents along the shipping lanes is given. The presentation benefitted from the results of the two projects: the EU FP7 Project *Ships and Waves Reaching Polar Regions (SWARP)* and the NERC *Impact Project Safer Operations at Sea - Supported by Operational Simulations (SOS-SOS)*.

NOC Facilities and Services Tours

FREE TO ATTEND

To sign up for an individual or group tour please visit the NOC stand:

➔ Stand W11

As well as these workshop and seminar sessions the NOC will be opening its doors for tours of the key testing facilities that are available for commercial hire, so that visitors can speak with the teams that run these facilities and discuss the potential for their use.

NOC's Engineering and Testing Services Tours

The NOC can offer a complete ocean engineering service to industry to help solve the problems that cannot typically be solved through traditional industry partners / suppliers. With their unique expertise in marine engineering innovation the NOC can help industry solve those challenges that will enable them to operate in more extreme environments, more robustly and for longer. They can offer, consultancy, design, manufacture and testing of complete systems or component parts. They have extensive testing equipment including pressure chambers and a systems reliability lab.

Tuesday 4 14.00 – 15.00

Wednesday 5 15.00 – 16.00

NOC Calibration Facility Tours

The National Oceanography Centre has recently recommissioned its state-of-the-art sensor calibration facility and is making it available for use by external customers. The facility has the ability to calibrate an extensive range of commercially available sensors and instruments.

Tuesday 4 14.00 – 15.00

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