

The newsletter of Oceans 2025

2025

Welcome

Congratulations to all those involved in the "Sailing over changing seas" exhibition showcased in July at the Tall Ships event in Liverpool (p.3). Also in July, BBC Newsnight's "Arctic Adventure" highlighted polar ecosystem research at SAMS (image below, article p.2). In May, the Oceans 2025 community met at NOCS for the Annual Science Meeting which was also attended by external stakeholders on the Programme Advisory Board. I hope you find Issue 4 interesting and look forward to your feedback, as well as



Photo: Robert Paterson, BAS

articles, news and reports of meetings for Issue 5.

Phil Williamson
 p.williamson@uea.ac.uk
 Oceans 2025 Science Coordinator

Annual Science Meeting (ASM)

On 28-29 May, Oceans 2025 colleagues from partner institutes and SOFI grant holders met at NOCS for the 2008 ASM. Theme-based presentations are now online at:

www.oceans2025.org/events.php.

Ten recommendations from the associated first meeting of the Programme Advisory Board included those relating to the transition to NERC's new funding structure (FAB); and the programme's evaluation, risk management and international linkages

(www.oceans2025.org/aboutoceans2025.php). These issues were considered at the Executive Board meeting, on 30 September.

Next generation marine research

Appointments



Photo: PML

In September, Dr Stephen de Mora took up his appointment as Chief Executive for Plymouth Marine Laboratory. Former head of the Department of Oceanography at the University of Quebec, Stephen also led his own environmental consultancy

which carried out high profile contracts for government and international agencies, such as the UN, across the globe.

PML www.pml.ac.uk/news_and_events/latest_news/pml.aspx



Photo: SAMS

Professor Laurence Mee is now the new Director of the Scottish Association for Marine Science. Formerly the Director of the Marine Institute at the University of Plymouth, Laurence has over 30 years experience in marine science and an impressive reputation for

his work in marine policy which has included acting as Special Advisor to the 2007 House of Commons "Investigating the Oceans" report.

SAMS www.sams.ac.uk/sams-news/sams-news-1/sams-appoints-new-director

In this issue ...

Events reports	Page 2/3
Research reports	Page 3
SOFI reports and policy update	Page 4



A strategic marine science programme for NERC

Oceans 2025 events reports

Newsnight follows Oceans 2025 cruise *Anuschka Miller, SAMS*

After last year's widely reported record loss of summer sea ice, there has been much public concern about Arctic climate change. The Oceans 2025 theme 1 team therefore decided to make as much information available as possible on their summer expedition to the ice edge north of Svalbard to investigate key ecosystem responses to the changing sea ice conditions. They invited Susan Watts, science correspondent for BBC2 Newsnight, to follow this summer's expedition on board the British Antarctic Survey vessel RRS *James Clark Ross* (JCR).



The RRS James Clark Ross is the backdrop for Susan Watts, Newsnight's science editor, as she does her piece to camera. Photo: Laila Sadler, SAMS

After familiarising herself with the scientific background for the expedition with the help of Ray Leakey from SAMS, who led the cruise, Susan interviewed a number of scientists onboard ship the day JCR set sail from Portland. The result was an introductory three minute report for Newsnight shown on 23 July. The screening launched Newsnight's online Arctic Expedition blog that allowed the public to follow the ups and downs in the life and work of three scientists on the expedition and to gain an insight into how science is conducted in such an extreme environment. A BBC documentary maker was onboard for most of the expedition, while Susan Watts

re-joined the ship for the last couple of days, interviewing Ray and the other bloggers about key outcomes. A 10 minute report was featured on Newsnight on 2 September.

The team had also set up their own website with more background information, photographs and a blog written by a science writer SAMS employed for the expedition. During the time of the expedition, SAMS noted a doubling of traffic to their website.

www.news.bbc.co.uk/1/hi/programmes/newsnight/7521339.stm
www.sams.ac.uk/research/research-themes/arctic/arctic-cruise-2008

The Permanent Service for Mean Sea Level (PSMSL)



The PSMSL (www.pol.ac.uk/psmsl) hosted at POL celebrates its 75th anniversary this year. It is a global data bank for long term sea level change information collected from tide gauges all over the globe. PSMSL's data holdings now total more than 54,000 station-years from around 2,000 stations.

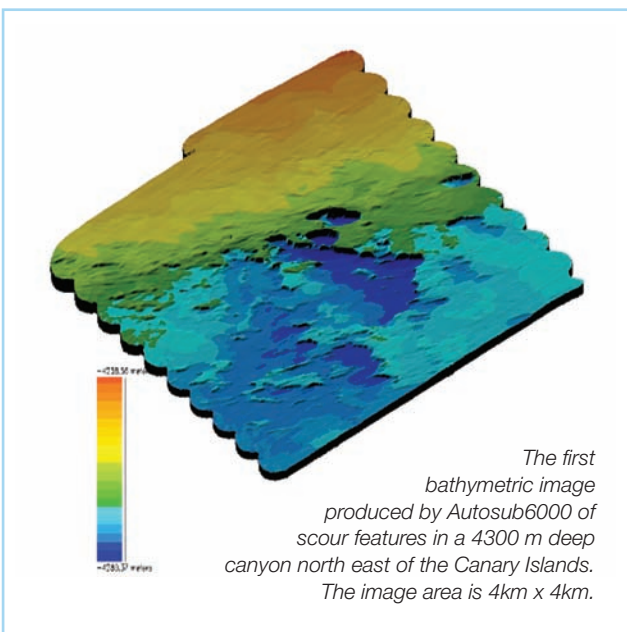
First Science Missions for Autosub6000

Stephen McPhail, NOCS

In August, as part of Oceans 2025 funded cruise RRS *James Cook* 027, led by Dr Russell Wynn, NOCS, Autosub6000 carried out 5 missions to investigate potential threats to coastal communities along the Western European margin from giant landslides, earthquakes and tsunamis.

While Autosub6000 surveyed an area of sea floor from the north of the Canary islands to the Whittard canyon, researchers onboard *James Cook* completed piston coring operations. At the end of each mission, more coring took place guided by the bathymetry generated by the AUV. Features of interest were seabed scours, hundreds of metres across, formed when giant submarine flows ripped out the seafloor. The AUV images, showing scale and frequency of flows, enabled accurate navigation of piston cores both within and outside the scour features.

Accurate navigation at depth is challenging - although when close to the seabed, relative navigation drifts by less than 1m for each 1km travelled, following descent to the seabed, navigation can be in error by hundreds of metres. Using 'Range - Only Acoustic Navigation' techniques developed at NOCS, Autosub6000 could be positioned to within a few metres accuracy



The first bathymetric image produced by Autosub6000 of scour features in a 4300 m deep canyon north east of the Canary Islands. The image area is 4km x 4km.

after descent to the seabed. Correction of the navigation via the *Tracklink1000* acoustic telemetry link ensured survey accuracy which, ultimately, will be sustainable throughout missions lasting several days.

Sub-bottom profilers, sidescan sonar, microstructure, CTD systems and biogeochemical sensors

are planned for Autosub6000; collision avoidance sensors will ensure safer operations closer to the seabed. Article in full:

<ftp://ftp.noc.soton.ac.uk/pub/autosub/Autosub6000/News2.pdf>

Sailing over changing seas

Jackie Pearson, NOCS

More than a million visitors enjoyed the Tall Ships event in July. An enthusiastic team from POL, NOCS, BGS, SMRU, MBA, SAHFOS and SAMS with NERC Swindon Office support showcased the *Sailing over changing seas* exhibit which attracted huge crowds. Marine-related research featured along the route of the race included the Atlantic heat conveyor, oceans for energy, sea mammal research, alien species, climate change in the abyss, the coastal observatory, cold water corals, "powerful plankton", ROVs, and NERC's ships. A BGS film showed the sea bed beneath the hulls of the fleet. *Sailing over changing seas* is now going "on the road" www.sailingoverchangingseas.org/



Before: A pause before the event opens...!



After: The exhibit is a huge success

Photos: Phil Williamson

Strategic Ocean Funding Initiative (SOFI)

SOFI funding available for workshops

NERC funds are available to assist and stimulate UK-wide engagement in marine environmental research of a strategic nature. Support is targeted at workshops and similar events that link Oceans 2025 activities at NERC-funded marine centres with those of the academic community and other stakeholders, including research users in the public, private and non-governmental sectors.

Further information: www.oceans2025.org/PDFs/Oceans_2025_SOFI_Workshop.pdf

2008 workshops

Workshop reports from SAMS and the MBA are now available on the Oceans 2025 web-site:

www.oceans2025.org/publications.php

Policy News: Draft Marine Bill

The consultation on the draft Marine Bill closed on 26 June; responses are published on the Defra web site. www.defra.gov.uk/marine/legislation/index.htm A joint committee of the House of Lords and House of Commons tasked with commenting on the draft stage of the Bill published its report on 30 July. The Committee welcomed the Bill and made numerous recommendations for improvements. The Government now has the opportunity to consider these before formally introducing the Bill before Parliament. Six of the Joint Committee's recommendations specifically refer to the importance of marine science in underpinning the Marine Act and the work of the Marine Management Organisation (MMO), the new marine regulatory body to be established under the Act. The full report is at www.publications.parliament.uk/pa/jt/jtmarine.htm A number of individuals and organizations, including the National Oceanography Centre, Southampton (NOCS) provided written evidence to the Joint Committee and NOCS Director, Professor Ed Hill, gave oral evidence before the committee on behalf of the Natural Environment Research Council.

Launch of national framework for environmental observations - and of new national database for marine observing systems

A new five-year UK Environmental Observation Framework (UK-EOF) has been launched by the Environment Research Funders Forum (ERFF) and is a partnership between 19 government departments, Research Councils and agencies. Professor Bob Watson, Chief Scientific Adviser to Defra and UK-EOF 'champion', said: *"I hope the UK-EOF will enhance our ability...to tackle the technical, institutional and economic challenges associated with observing our constantly changing natural environment."*

The UK-EOF will address the collection, sharing and funding of long-term datasets, as identified by ERFF analyses. Monitoring is coordinated on a national basis, primarily through the UK Marine Monitoring and Assessment Strategy, a recent output of which is the UK Directory of Marine Observing Systems (UKDMOS), "a unique searchable metadatabase of marine monitoring." Further information, UK-EOF: www.erff.org.uk/activities/ukeof.aspx and UKDMOS: www.ukdmos.org

Consultation on Our Seas - a shared resource

The UK Government, Northern Ireland Executive and Welsh Assembly Government sought comments by 30 September, on "Marine Objectives" defined for the UK marine area as a whole.

www.defra.gov.uk/corporate/consult/highlevel-marine/index.htm NERC asked the National Marine Coordination Office to help coordinate the community's response to this consultation: www.noc.soton.ac.uk/nmco/consultation.php

Contact Details

Dr Phil Williamson, Science Coordinator, email: p.williamson@uea.ac.uk

Jackie Pearson, Newsletter Editor, email: jfpea@noc.soton.ac.uk

www.oceans2025.org