Prof Ed Hill OBE
Chief Executive NOC

Professor Ed Hill is Chief Executive of the National Oceanography Centre (NOC) having been appointed as Executive Director in 2010, previously holding the position of Director at NOC since 2005 and the Proudman Oceanographic Laboratory (NERC) in Liverpool 1999-2005. Professor Hill has served and continues to serve on numerous national and international advisory bodies, including: the International Steering Group of the Global Climate Observing System (GCOS), the European Marine Board (EMB), the cross UK Government UK Marine Science Coordination Committee (MSCC), the Governing Board of the National Partnership for Ocean Prediction (NPOP).

Professor Hill's research background is in physical oceanography, specialising in the circulation of continental shelf seas and participated in over 20 research ship expeditions, half of these as Principal Scientist. Professor Hill received his MSc and PhD degrees in oceanography from Bangor University and his BSc in applied mathematics from the University of Sheffield, and subsequently recognised by both universities with the award of an Honorary Fellowship (Bangor) and an Honorary Doctorate of Science (Sheffield). He was appointed an Officer of the Most Excellent Order of the British Empire (OBE) for services to environmental sciences.

James M. Birch, Ph.D.
Director, SURF Center **-** Monterey Bay Aquarium Research Institute

Jim Birch received his B.S. from the University of North Carolina, Chapel Hill, and his M.S. and Ph.D. specializing in evolutionary biology and functional morphology from the University of Michigan. He did postdoctoral work at Northern Arizona University and then joined the University of California, Berkeley as a research fellow, studying the fluid dynamics of insect flight using a scaled robotic insect model immersed in two tons of mineral oil. He continued honing his instrument design experience at Lawrence Livermore National Laboratory, working on various biodetection technologies and point-of-care diagnostic devices for biomedicine before coming to MBARI.

Jim joined MBARI in 2007 as the Instrument Group Leader in the Engineering department. While overseeing engineers developing instrument systems for oceanographic research, he became the project manager for the Environmental Sample Processor (ESP) project, begun by P.I. Chris Scholin in the early 2000's. In 2009 he moved into his current role as Director of the SURF Center (Sensors: Underwater Research of the Future) where he oversees all aspects of the ESP project.

Nick Lambert
Ocean Infinity

A master mariner and a committed proponent of the maritime users' perspective, Rear Admiral Nick Lambert concluded a long naval operational career as the UK National Hydrographer in December 2012. He advises on a wide range of maritime issues including the growing potential of the blue economy concept, the importance of spatial data infrastructures and hydrography for maritime economies, the evolution of eNavigation and GNSS vulnerability, near or real time situational awareness (especially that derived from space based assets and applications), maritime connectivity and cyber security, human factors, and training and education in the maritime sector. He has a particular interest in the Polar Regions and is also engaged in a variety of situational awareness, fisheries and aquaculture management, marine autonomous systems and vessel efficiency projects.

**MARINE AUTONOMY &
TECHNOLOGY SHOWCASE**
12-14 NOVEMBER 2019

National Oceanography Centre

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MATS 2019

Daily Host Day 1 -

Aidan Thorn
Marine Robotics Innovation Centre Manager (MARSIC) NOC
aidan,thorn@noc.ac.uk

Aidan Thorn is the Manager of the NOC's Marine Robotics Innovation Centre, he has 18 years' experience of working for the NOC, largely in industry facing roles primarily focused around the centre's technology-related work. He became Innovation Centre Manager in May 2018. Aidan has an excellent track record of working with industry, academic and government partners to secure funding for collaborative R&D projects as well as commissioned research work for the NOC. He is the Chair of the NOC's Marine Autonomy and Technology Showcase Delivery Group, a member of the Marine Measurement Forum steering group and a member of the Society of Maritime Industries' Maritime Autonomous Systems Group Council.

Daily Host Day 2 -

Matthew Palmer
Chief Scientist Marine Autonomous and Robotics Systems NOC
rolm@noc.ac.uk

Matthew Palmer is Chief Scientist of the Marine Autonomous and Robotics Systems (MARS) facility at the National Oceanography Centre. He has 10 years experience using AUVs in coastal, shelf sea and open ocean waters in a range of multi-disciplinary programmes and currently co-leads GOOS activity developing best practice with ocean gliders.

Matthew also chairs the UK Integrated Marine Observing Network (UK-IMON), which is tasked with ensuring UK ocean observing is fit-for-purpose to meet policy, societal, scientific and operational requirements

Daily Host Day 3 –

Russell Wynn
Associate Director for Government, International and Public Engagement, NOC
rbw1@noc.ac.uk

Is responsible for advising UK Government and a wide range of industry partners on NOC's science and technology capabilities. He oversees the NOC Communications team and the International and Strategic Partnerships Office.

Russell has also been NOC's Chief Scientist for Marine Autonomous and Robotic Systems (MARS) since 2013. He leads external engagement for the ongoing £30M of UK Government investment in the MARS fleet (including 'Boaty McBoatface'), and is co-ordinator of the annual 'MASSMO' series of demonstrator missions for UK Marine Autonomous Systems.

Russell was previously Head of NOC Marine Geoscience at NOC, and has published over 100 peer-reviewed science papers on topical marine matters, including submarine geohazards, marine conservation, and novel use of MAS technologies. Russell is also an Honorary Professor at University of Southampton, where he completed his PhD in marine geoscience in 2000.

Session Chair Theme 1 – Users and Applications –

Peter Collinson
Senior Subsea and Environmental Specialist BP
collp5@bp.com

Peter Collinson is the Senior Subsea and Environmental Specialist in BP Upstream Technology. He has specialism (and passion!) for Marine Autonomous Systems (MAS), specifically with a focus on subsea inspection and environmental applications. He leads BP's Subsea strategy for modernisation and transforming the business through MAS. Prior to this role, Peter was BP's Global Environmental Response Expert. Peter has a doctorate in Marine Ecology and specialism in Risk Management, Crisis Management and marine technology. Peter is a fellow of the Institute of Marine Engineering Science and Technology (IMarEST), a member of the UK Marine Autonomous Systems Steering Group and a BP relationship manager with the UK National Oceanography Centre, UK.

Session Chair Theme 2 – Planning and Control –

Ben Pritchard Thales UK
Research, Technology & Innovation Thales UK
Ben.PRITCHARD@uk.thalesgroup.com

Ben Pritchard graduated from Imperial College with a 1st in Electrical and Electronic Engineering in 2004. His Masters thesis focused on biologically inspired robotic manipulators. He joined Thales straight after and has been a researcher, systems engineer, project manager and R&D investment manager. From 2011 to 2017 he was the Technology and Innovation Manager for Thales' UK rail business and he is now the Research Group Leader for Autonomous Systems. Ben's team of researchers address various aspects of autonomy that apply right across the full range of Thales capabilities and ambitions across its space, aerospace, defence, security and transport business activities.

Ben's in-house team is the 'hub' that connects to a broad academic and industry partner network to conduct collaborative R&D. In 2017, Ben began a part-time MSc in Computer Vision, Robotics and Machine Learning, to further deepen his own technical understanding of the area. He's a visiting researcher at the University of Bristol, sits on the Industry Advisory Board of the Bristol Robotics Lab and leads a project with them in the National Centre for Nuclear Research. Ben has industry-supervised MBA, MSc and PhD students and is currently working to grow Thales' collaboration with the University of Southampton.

Session Chair Theme 3 – The Vehicle –

Maaten Furlong,
Head of MARS facility NOC
maaten.furlong@noc.ac.uk

Maaten Furlong joined NOC in 2005 as an AUV development engineer and has been involved in many aspects of research, development and operation of the Autosub AUV fleet. In 2013 he became the head of the MARS facility where he now oversees the operations and development of the AUV, subsea glider, unmanned surface vehicle, and ROV fleet. He is actively involved in improving the operational efficiency of the fleet, has won Innovate UK funding to develop the next generation of marine autonomous systems, and is technical advisor for the £16M Oceanids Programme

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Session Chair Theme 4 – Data Collection –

Matthew Mowlem
National Oceanography Centre

Is head of the Ocean Technology and Engineering Group and lead over forty engineers, technologists, and scientists in the development and provision of technology for support of marine, aquatic and environmental science and related industrial and regulatory applications.

My research interests include the development of environmental measurement systems including the development of new chemical sensors and sensors for microbiology. I have a particular interest in the development of microsensors using either or both microfabrication and microfluidics. This has led to the development of a suite of sensors for nutrients, carbonate system parameters, trace metals, organic nutrients, pathogens, phytoplankton, hydrocarbons, pollutants and toxins.

Skills:

- Development and generation of research ideas and technology development programmes
- Microfluidic Systems Design
- Sensor Design
- Metrology of complex parameters
- Autonomous Systems
- Multidisciplinary Engineering

Session Chair Theme 5 – Generating Information from Data –

Eleanor Frajke-Williams
National Oceanography Centre
eleanor.frajka@noc.ac.uk

Dr Eleanor Frajka-Williams is a Principal Research Scientist in the Marine Physics and Ocean Climate group. Eleanor is a physical oceanographer who uses ocean observations to investigate ocean dynamics and circulation in a changing climate. She has a particular interest in problems spanning scales (from micro- to large-scale) or spheres (biogeosphere, cryosphere, atmosphere), and in methods that leverage traditional observations with new platforms and satellite data.

She is currently a research scientist on the RAPID team (http://rapid.ac.uk), and principal investigator on the NERC-funded project MerMEED (Mechanisms Responsible for Mesoscale Eddy Energy Dissipation) and the EU-funded project TERIFIC (Targeted Experiment to Reconcile Increased Freshwater with Increased Convection), using autonomous underwater and surface vehicles along with satellite observations and traditional ship-based measurements.