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UK Glider Workflow

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Abstract (Poster)

The British Oceanographic Data Centre (BODC) is the designated Data Assembly Centre (DAC) for UK glider measurements. The BODC aligns with the Everyone's Gliding Observatories (EGO) framework – the recognised infrastructure for exposure of glider observations in Europe and beyond (<https://www.ego-network.org>).

The UK ocean glider fleet is growing rapidly and includes both mature and innovative sensor technologies, which allow us to collect a wide range of data types in spatial and temporal resolutions that were previously impractical. The use of autonomous vehicles alongside traditional observing platforms (e.g. research ships) has led to a step change in the volume of data collected and handled in Near Real-Time (NRT).

With the move towards FAIR (Findable, Accessible, Interoperable, Reusable) data principles, adoption of recognised standards to ensure observations remain interoperable for long-term re-use is becoming paramount. The BODC will continue to align with EGO to ensure maximum possible impact for UK glider data.

Investment through projects such as Oceanids has brought much-needed funding to develop the necessary infrastructure to underpin UK glider operations. The hope is to build a system that can pilot an ever growing fleet of vehicles more effectively and implement efficient methodologies for handling the flow of data from autonomous vehicles, such as gliders, through to data users.

Since the summer of 2018 the BODC have been using the Oceanids Command and Control (C2) system for new glider deployments and also more recently the BODC has targeted key legacy deployments to include a UK cross representation from the main glider operators including: National Oceanography Centre (NOC), Scottish Association for Marine Science (SAMS), University Of East Anglia (UEA) and British Antarctic Survey (BAS).

To date the C2 system has been used for the following UK projects: AlterEco, OSNAP, SOLSTICE, Massmo, BoBBLE and Custard.

The current operational workflow includes the NRT stream and a key development is to build a workflow for Slocum recovery data. Whilst efforts to date have focused on Seaglider and Slocum platforms, the modular design of our systems will enable future extension to handle bespoke requirements for other autonomous platform types.

This poster will present the UK's operational workflow whilst showcasing projects that have benefited from its implementation and also touch on ongoing developments and aspirations.