Geophysics data management at the UK Polar Data Centre

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The UK Polar Data Centre (UK PDC, https://www.bas.ac.uk/data/uk-pdc/) is the focal point for Arctic and Antarctic environmental data management in the UK. Part of the Natural Environmental Research Council’s (NERC) and based at the British Antarctic Survey (BAS), the UK PDC coordinate the management of polar data from UK-funded research and support researchers in complying with national and international data legislation and policy.

Reflecting the multidisciplinary nature of polar science, the datasets handled by the data centre are extremely diverse. Geophysics datasets include bathymetry, aerogravity, aeromagnetics and airborne radar depth soundings. These data provide information about the seabed topography, the Earth’s geological structure and the ice thickness. The datasets are used in a large variety of scientific research and projects at BAS. For instance, the significant seabed multibeam coverage of the Southern Ocean enables BAS to be a major contributor to multiple international projects such as International Bathymetric Chart of the Southern Ocean (IBCSO) and Seabed 2030. That is why, it is crucial for the UK Polar Data Centre (PDC) to develop robust procedures to manage these data.

In the last few months, the procedures to preserve, archive and distribute all these data have been revised and updated to comply with the recommendations from the Standing Committee on Antarctic Data Management (SCADM) and the requirements of CoreTrustSeal for a future certification. The goal is to develop standard ways to publish FAIR (Findable, Accessible, Interoperable and Reusable) data and set up workflows for long-term preservation and access to UK PDC holdings.