

Service Level Agreement between the National Oceanography Centre, Southampton (NOCS) and the British Oceanographic Data Centre (BODC) in respect of the management of data generated by NOCS programmes.

Introduction

1. This document outlines a Service Level Agreement (SLA) between The National Oceanography Centre, Southampton (NOCS) and the British Oceanographic Data Centre (BODC) in respect of the management of data generated by NOCS marine programmes.
2. Here, data management is taken to mean that resource necessary to facilitate the delivery to BODC of fully quality controlled and documented data that have been produced by the NOCS scientists. It includes screening/checking for errors, banking the data in a consistent manner and making them available in a coherent way so that users do not have to refer to the data originators. It does not include collection, analysis and calibration of data, nor does it include the production of derived products unless explicitly agreed.
3. Data management staff at BODC and NOCS are termed Data Scientists.

Background

4. NERC requires those in receipt of funding to have in place a data management plan that ensures that data and the necessary metadata are passed to its Designated Data Centres for long-term curation and distribution on request. An outline of the principles and responsibilities can be found in the NERC Data Policy (www.nerc.ac.uk/research/sites/data/policy.asp). This ensures that the information that forms the basis of NERC's research and understanding is readily available, at known standards, for scrutiny and future interpretation. The policy helps fulfil a key element of NERC's mission to "disseminate knowledge of, and engage society in, the environmental sciences".
5. The Environmental Information Regulations (EIR) mean that NERC and its research and its collaborative centres are legally required to ensure that data collected through NERC funding are readily available to individuals and companies on request.
6. Other public sources of funding for data collection and research (e.g. Defra, DTI and the EU) will have similar requirements to make data available.
7. As part of its core funding from NERC within the Oceans 2025 programme, BODC has set aside close to one person year per year of baseline effort for six of the NERC Marine Research/Collaborative Centres (NOCS, POL, PML, SAMS, BAS and SMRU). This funding also includes a resource to support the basic IT infrastructure necessary to maintain and update BODC's databases and data delivery systems.
8. If Research/Collaborative Centres generate data at a rate above that which can be managed within the baseline level of effort, then the expectation is that this must be met from within the resources of the relevant Science Programme. The NOCS Science Plan recognises this through the creation of the NOCS data management team (4 FTE) with

responsibility to work alongside BODC to manage data originating from the NOCS core funded programme.

BODC's responsibilities

9. BODC will designate a Laboratory Liaison Officer (LLO) to manage the SLA between NOCS and BODC within the limits of the staff resource detailed in paragraphs 7, 8 & 17 (i.e. 5 person years effort annually). The broad responsibilities of the LLO are:

- To maintain contact with the NOCS data management team and scientists in order to understand scientific activities, potential data generation and requests.
- With NOCS, to identify activities (past, present and future) that require data management.
- Advise on and manage the delivery of data to BODC, its assembly, curation and future dissemination.

10. BODC's primary responsibility is to ingest all NOCS calibrated data for longer-term curation and subsequent distribution such that the data should be readily useable without reference to the originator. Exceptions to this include data that are already managed elsewhere, for example at other NERC designated data centres and physical sediment cores (BOSCORF). BODC will provide advice in the case of doubt.

11. In addition to the basic management responsibilities of a Designated Data Centre, it might be that on occasion it would be most efficient for Data Scientists to undertake calibration and quality assurance for a number of data sets and types (e.g. CTD & shipboard underway). If so, this will require additional resource so as not to impede the core responsibilities of the team.

12. As part of its role as a National Data Centre, BODC will provide the IT infrastructure to enable: the tracking of data collection activities; liaising with scientists; ensuring the appropriate quality control; gathering and collating the necessary meta-data documents which describe data and their collection; a screening procedure; and ultimately delivery.

13. The BODC infrastructure will be the primary means by which to service requests for NOCS data from organisations outside NOCS (given that data is lodged with BODC). BODC will also service requests from within NOCS for data. However, activities such as the compilation and ingestion of data from multiple external data providers (e.g. for model validation) will be the responsibility of NOCS scientists unless specifically agreed otherwise.

14. BODC guarantee that NOCS will normally have sole access to their data for a period of 2 years following their collection unless specific exceptions are agreed between BODC and the appropriate programme leader. However, it is expected that the data will be delivered to BODC as soon as possible after collection and generally within one year of collection unless previously agreed.

15. As NERC's Designated Data Centre and the National Oceanographic Data Centre it is BODC's responsibility to ensure the management of data arising from programmes outside NOCS core funding.

16. BODC undertake to provide the necessary support to the Data Scientists in order to foster the concept of data management as a career.

NOCS responsibilities

17. To provide the necessary resource over and above that available as part of BODC's core funding (see paragraph 9) to ensure that NOCS meets its obligations under the NERC Data Policy. In the first instance NOCS will fund 4 FTEs whose remit will be to ensure the management of data resulting from NOCS core Oceans 2025 programme, but with consideration of earlier data (see paragraph 25). In addition, NOCS will provide the T&S required for these Data Scientists to undertake their duties, including training when appropriate in Liverpool.

For clarification BODC is the designated repository for all NERC funded marine data, which for the following categories means:

- For all data generated under responsive mode, standard and small research grants the PI of the grant is responsible for arranging its management by BODC (or other NERC designated data centre) and the key point of contact in BODC is the LLO. They will advise if other data centres should be involved.
- All data generated under Directed Mode (Thematic) grants will continue to be carried out by BODC.
- All data generated under Consortium grants will continue to be carried out by BODC.
- Externally funded commissioned work aligned with NERC's strategic priorities will normally be managed through BODC, and it will require the PI to build funding support for such data management into the cost of the grant.
- NERC funded strategic research (Oceans 2025) at NOCS is funded through the NOCS data scientists and managed as described in paragraph 20. The exceptions to this are in the case of defined data sets where existing arrangements are in place (e.g. AMT and RAPID Watch).
- The NOCS data scientists will also be responsible for those NOCS data which are currently managed in collaboration with BADC, NEODC and appropriate other designated data centres. This includes, but is not restricted to, the routine download and standard product generation of EO data; archival and metadata generation for NOCS ocean model data to be served directly via the NERC Data Grid, or other data dissemination system supported by BADC; and the lodging of data to other designated data centres as appropriate.

18. It is the primary responsibility of the Data Scientists at NOCS to work alongside those at BODC, using the same practices and standards to ingest all NOCS calibrated data for longer-term curation and subsequent distribution, such that the data should be readily useable without reference to the originator.

19. It is not the responsibility of the Data Scientists to analyse and calibrate data. However, it might be that there are occasions when it is more efficient for this group of people to take on this task. If so, this will require additional resource so as not to impede the core responsibilities of the team.

20. The work programme of the Data Scientists will be the responsibility of BODC, being led by a management team comprising the BODC Director, the senior Data Scientist at NOCS and the NOCS LLO. The programme of work will be agreed with NOCS management. Staff appraisal and management of the Data Scientists at NOCS will conform to the requirements specified in the Agreement between NERC and the University of Southampton.

21. New recruits to the Data Scientist team will be as NERC employees, with the Director of BODC being part of the recruitment panel.

22. NOCS undertakes to deliver all data to the Data Scientists, whether processed or raw, in a form agreed with BODC. This will include the necessary metadata, fieldwork/cruise documentation and instrument information.

23. The Data Scientists will be invited to attend the appropriate science planning meetings in order to discuss data collection and management activities.

24. When bidding for contracts in addition to NOCS core science programme, NOCS will consult with BODC to ensure that appropriate measures and funds are included to guarantee full management of the resulting data. NOCS also undertakes to provide BODC with regular progress reports on such bids.

Scope of Data

25. As a minimum, the status of all data collected from 2001 onwards will be considered. An inventory will be made of data collected. Effort will be concentrated on NERC core funded data, but where appropriate this will extend to programmes with direct relevance to the core programme (e.g. historical PAP data) or data sets deemed operationally critical by NOCS.

26. Following the NOCS data audit, the NOCS data team and appropriate Science Area Leaders, in conjunction with BODC, will define the appropriate action in respect of unmanaged data.

27. An inventory of data and programme of work will be maintained, summarising the status in terms of “awaiting management”, “managed” and “forthcoming/expected work”.

28. BODC and NOCS are committed to developing a mutually acceptable approach to the storing and maintenance of an appropriate inventory of raw unprocessed data (observational and models).

29. The goal of BODC and NOCS is to ensuring the complete management of all data collected by NOCS.

This SLA agreed between:

Prof. A.E. Hill (Director NOCS) (2/10/2007)

Dr J. Brown (Director BODC) (2/10/2007)