Natural Environment Research Council

Prioritisation Framework for Polar Infrastructure – January 2025

1. The British Antarctic Survey (BAS) is a world-leading centre for polar science and operations, addressing issues of global importance and helping society adapt to a changing world. The Antarctic Logistics and Infrastructure (ALI) partition is to support BAS activities in Antarctica with a dual purpose: maximising frontier science and maintaining the effective UK presence in Antarctica and the Southern Atlantic.

2. BAS aims to provide and operate world-leading research infrastructure that enables scientists from the UK, and colleagues from many nations, to work safely and effectively in the polar regions (see BAS Operational Strategy). A key goal is to be recognised nationally and internationally as a partner of choice for polar operational expertise wherever it can be applied.

3. This is intended as a framework to inform discussions and prioritisation by the Polar Research and Operations Board (PROB) and BAS operations teams, rather than a definitive decision-making process, noting the many practical considerations needed in planning polar operations. This prioritisation framework will be reviewed regularly by PROB to ensure it remains fit for purpose.

Scope

4. For the purposes of this paper polar infrastructure is intended to mean BAS operated infrastructure in both the Arctic and Antarctic that is used to support science and research activity; maintenance of stations in both regions; and equipment that can be deployed across multiple activities. This includes, but is not limited to, BAS operated research vessel (RRS Sir David Attenborough) and associated marine scientific equipment (gliders, autosubs etc); accommodation, laboratories and staff support facilities at stations, and in the deep field; aircraft; and vehicles.

Prioritisation of use of infrastructure

5. **It is NERC's aim that in any one season, through best endeavours of the BAS operations team, that BAS will meet all scientific research, infrastructure modernisation and logistics demands through efficient planning and preparation and where it is cost effective and efficient. However, should demands exceed available resources, or to increase efficiencies, this paper sets out an approach to how the use of polar infrastructure should be prioritised.**

6. The prioritisation of use of polar infrastructure is based on the categorisation of demands on use set out in paragraphs 10-12 below.

7. Within a Tier, priority will be given to those listed in the order set out below and activities that have been postponed from previous seasons or carried over from previous seasons.

8. Where there is an opportunity to programme activity such that it maximises the number of science opportunities, for example by programming geographically focused activity at the same

time (whether different research programmes, or scheduling logistics, research and infrastructure modernisation activities together), then flexing the framework in the interests of time efficiency and financial and carbon cost effectiveness will be considered.

9. When activities are not able to be delivered by BAS operated infrastructure within the prioritisation framework, BAS and NERC will continue to work to off-set pressures by investigating alternative delivery mechanisms and collaborations with partners, such as bartering or hiring ship time or aircraft and other terrestrial logistics support. Scientists are also encouraged to maximise the use of existing research data where possible.

10. **Tier 1**

    Tier 1 is the highest priority of use of infrastructure. In most circumstances it is expected that Tier 1 use of infrastructure will be given priority over Tier 2 use.

    i) **H&S and essential maintenance for Antarctic presence**. Health and Safety requirements and activities necessary to safely maintain planned physical presence and stations within a defined field season, including any mandated activity or physical presence for BAS to deliver the UK's strategic footprint in the British Antarctic Territory and South Georgia & the South Sandwich Islands, under the Antarctic Logistics and Infrastructure (ALI) partition arrangement. This activity is required to ensure the safe conduct of planned activity for the season (or for immediate start the following season).

    ii) **Maintenance of essential scientific equipment**. Essential scientific equipment is that which is used for acquiring key long-term sustained observations of national importance and sustaining major automated data capture (e.g. ocean moorings, Halley automation facility). Essential scientific equipment will be reviewed by BAS annually and PROB informed of the outcome of such reviews.

    iii) **Infrastructure modernisation programme – high priority works**. This applies to the actions on the critical path necessary to maintain infrastructure capability.

11. Tier 1i activities will be given greater priority in most circumstances than those in Tier 1ii and iii.

12. **Tier 2**

    Tier 2 activities in most circumstances would be considered after Tier 1. Tier 2 activities are listed in priority order below. However, it is expected that a balance of Tier 2 activities will be supported by over a longer period, for example 3 years/field seasons. It is expected that over a period of 3 years *each* of the Tier 2 activities will be undertaken. PROB, with support from BAS operations teams, should keep this balance under review.

    i) **NERC/UKRI-funded competitively won research.** This includes research in both the Arctic and Antarctic, land and sea-based research and servicing of instruments funded by active grants. This may include substantial international collaborations (e.g. where the total cost of programme is >£3M).

    ii) **NERC National Capability Science and FCDO / ALI partition science.** This includes scientific activity that BAS is expected to undertake as part of the ALI partition.

    iii) **Infrastructure modernisation programme – mid priority.** This applies to items necessary to maintain infrastructure capability which if delayed, will become items on the critical path next season (i.e. Tier 1iii).

    iv) **Non-NERC funded research covering full support costs or revenue-generating** (including international partnerships). Peer reviewed science that is within NERC's remit.

v) **Non-NERC funded research not covering full support costs**. Peer reviewed science that is within NERC's remit.

vi) **Infrastructure modernisation programme – low priority.** Items delivering new strategic benefit.

vii) **Opportunistic removal of monitoring instruments remaining in the field from competitive funding that has ended.**

viii) **Collaborative Antarctic Science Scheme (CASS).** This includes small-scale, fieldwork-based science projects to maximise science opportunities, but do not require significant logistic resources additional to those already allocated to the Antarctic field programme.

13. BAS Operations teams will ordinarily determine the category of each proposed activity. When this is uncertain, BAS will refer to the PROB chair for a final decision.

14. This framework will be reviewed after the first planning season and then annually by PROB.