

# **Business Plan** 2006



### **Executive Summary**

BAS Business Plan 2006 sets the agenda and priorities for the Survey to achieve its Mission during Financial Year 2006/07.The Plan is relevant to the work of everyone in BAS and is published on the BAS Intranet (http://basweb.nerc-bas.ac.uk/busplan).

### **BAS Vision**

British Antarctic Survey aspires to become, by 2012, the leading international centre for Global Science in the Antarctic Context.

### **BAS Mission**

To undertake a world-class programme of scientific research, survey and longterm observations, and to sustain for the UK an active and influential regional presence and a leadership role in Antarctic affairs.

### **BAS Priorities for the Financial Year 2006/07**

- Deliver Global Science in the Antarctic Context 2005-10
- Synthesise the results of the previous quinquennial programme, Antarctic Science in the Global Context, 2000-05
- Achieving the BAS Vision
- Maintain the emphasis on staff development, including cultural values
- Take forward the Halley VI Project and its revised delivery strategy
- Seek continued improvements in Health & Safety and environmental management, including ISO accreditation
- Take forward the BAS Information Management
- Maintain expenditure within budget guidelines
- Maintain a leading role in planning for the International Polar Year 2007/08
- Support the UK Delegation at the June 2006 Antarctic Treaty Consultative Meeting in Edinburgh

### Resources

The BAS budget is in balance over the period of the Plan, with flexibility retained to fund priority needs year-on-year. The Survey continues to improve the way in which it manages capital and resource expenditure separately. It is imperative that expenditure is held within budget. The BAS Board imposes appropriate controls during a financial year if that is necessary to avoid forecast overspending.

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## I. Director's Foreword



Prof Chris Rapley CBE **Director British Antarctic Survey** 

As one of its Strategic Priorities, BAS is committed to achieving excellence by applying the best management practice and techniques to what is, by any standard, a hugely complex and challenging operation.

I point out to people unfamiliar with us that we combine the roles of DHL, Ryanair, and P&O, whilst running five small cities - all in the most remote and inhospitable region of the planet. We do so to underpin our developing position as THE world-leading Earth System Science institute focussing its efforts on the Southern Ocean and Antarctic. We take pride in adopting systems and processes that are lean, cost-effective, bureaucracy-light and yet fully "fit-for-purpose". Key to our success is complete openness and transparency, and in this respect our annual Business Plan is central, since it provides a succinct summary of our priorities for the coming financial year, and the details of how we intend to deliver them. As I do every year, I commend the BAS Business Plan as the definitive source of business information for BAS staff and the

### 2. Scope and Purpose of the Plan

BAS Business Plan 2006 sets the agenda and priorities for the Survey to achieve its Mission during Financial Year (FY) 2006/07; it also informs planning over the succeeding three years. The Business Plan is consistent with the Natural Environment Research Council (NERC) Delivery Plan and the financial allocations to BAS. Its construction has been guided by the planning assumptions at Table 16. The Plan was approved by the BAS Board in March 2006 and is used to shape the management and work of BAS during 2006/07. The Plan is relevant to the work of everyone in BAS and is published on the BAS Intranet (http://basweb.nerc-bas.ac.uk/busplan).

### 3. NERC Mission and Strategic Aims

BAS activity contributes to NERC's mission and strategic aims, which are listed in Table  $\,$  I  $\,$  6.

### 4. The BAS Vision

BAS aspires to become by 2012 the Leading International Centre for Global Science in the Antarctic Context.

### 5. BAS Strategic Priorities to 2012

To achieve the Vision, BAS will:

- Focus its work on relevant key global or basic science issues
- Achieve excellence in delivering science using best practice
- Lead national and international science partnerships
- Achieve worldwide public recognition for excellence
- Maintain a British presence in the Antarctic
- Minimise its effects on the environment
- Build a top quality, professional workforce

The BAS Board continues to refine its implementation plans to take forward these strategic objectives.

### 6. The BAS Mission

- To undertake a world-class programme of scientific research, survey and long-term observations, addressing key issues of global or fundamental importance that can best be dealt with by research requiring access to the Antarctic or related regions
- To sustain for the UK an active and influential regional presence, and a leadership role in Antarctic affairs
- To maintain an integrated, well-managed national capability to support the overall NERC science strategy, to exploit research outcomes, and to raise public awareness worldwide
- To assist in the discharge of the UK's international responsibilities under the Antarctic Treaty
   System and with the administration of the British Antarctic Territory
- To provide reliable and independent advice to the UK government and other stakeholders, contributing to the effectiveness of UK public services and policy
- To provide a focus for national and international cooperation, and for the coordination of major research programmes, especially those addressing complex scientific problems or requiring significant technology or infrastructure

### 7. Overall BAS Objectives

BAS is required to implement its programme of Core Strategic research, approved by NERC Council, within the allocated resources, and monitored by the BAS Review Group. The Programme is consistent with NERC's Science and Innovation Strategy and corporate governance framework, and with the Government's objectives as identified by the Foreign and Commonwealth Office (FCO). Additional research activities are funded by NERC thematic and non-thematic grants, the European Union, and a variety of other sources, including commercial contracts and the Antarctic Funding Initiative. Support is also provided to the FCO, as part of the BAS Mission. Opportunities are taken to earn income from BAS assets and skills when that does not conflict with the core programme.

### 8. BAS Culture

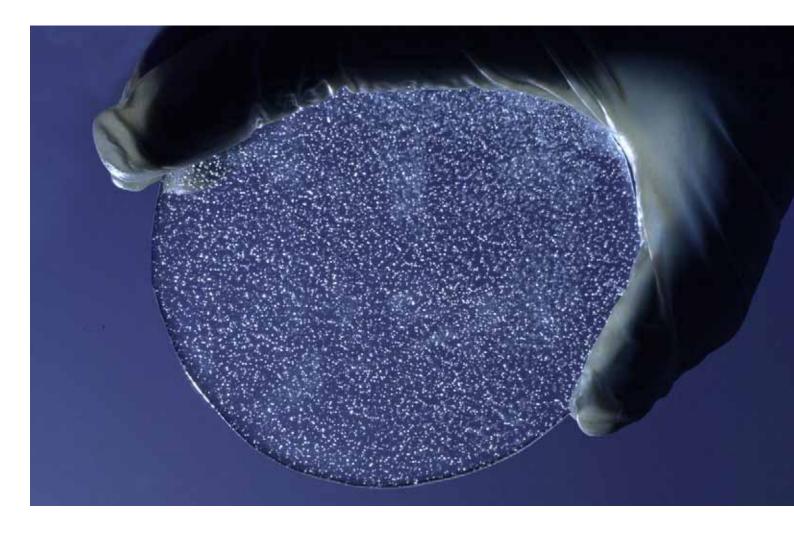
BAS promotes the core expectations that NERC has defined for its staff and aspires to a culture that is:

- Positive Positive attitude, energy, realism, enjoy the work
- Responsible Safety conscious, environmentally friendly, accountable for one's actions, honourable, ethical, respectful towards one another, open and fair
- Imaginative Creative, flexible, thinking of better ways, constructively challenging, learning from experience, problem solving, entrepreneurial and outward looking
- Cooperative Open, communicative, loyal to one another, working in the best interests of BAS and science
- Excellent Professional, efficient and effective, successful and recognised, high quality, applying best practice and developing our people

The BAS cultural values are an important element when judging peoples' performance and when assessing the contribution that individuals make to the Survey. Action continues to embed the cultural values into day-to-day business processes and reward mechanisms.







### 9. Business Plan 2006 Priorities for Financial Year 2006/07

- Deliver Global Science in the Antarctic Context 2005-10
- Synthesise the results of the previous guinguennial programme, Antarctic Science in the Global Context, 2000-05
- Achieving the BAS Vision
- Maintain the emphasis on staff development, including cultural values
- Take forward the Halley VI Project and its revised delivery strategy
- Seek continued improvements in Health & Safety and environmental management, including ISO accreditation
- Take forward the BAS Information Management Strategy
- Maintain expenditure within budget guidelines
- Maintain a leading role in planning for the International Polar Year 2007/08
- Support the UK Delegation at the June 2006 Antarctic Treaty Consultative Meeting in Edinburgh

### 10. Global Science in the Antarctic Context (2005-10), Q4

10.1 This Plan marks the second year of the five-year core programme over the period 2005/06 to 2009/10, Global Science in the Antarctic Context (GSAC). The Programme is the fundamental step to achieving the BAS Vision. GSAC expands the Survey's activities, includes a larger element of non-Antarctic work, and involved the recruitment of over 30 new staff for the science divisions. The GSAC fieldwork increases the utilisation of BAS logistics, with the ships and aircraft almost fully committed until the end of the Programme.

10.2 GSAC was internationally peer reviewed and judged to be in the top 25% of world science. The Programme comprises eight core research programmes (listed in Table 16), each with up to four projects. The individual projects are closely integrated so that their science output can be synthesised to address larger and more complex scientific problems. The eight programmes complement each other and offer further scope for integration at a higher level. GSAC is managed through a matrix structure with Principal Investigators (Pls), responsible to the Head of Science Programmes, leading the science and with the Heads of the Science Divisions (Science HoDs) managing the budgets and delivering the agreed outputs. The PIs and the Science HoDs work together to strike the best balance between the efficient use of the available resources and the achievement of world-class science. The PIs are responsible for ensuring with the Science HoDs that adequate monitoring procedures are in place to assess progress towards delivery.

10.3 The balance of the BAS core programme consists of:

- Long Term Monitoring and Survey (LTMS)
- Individual Merit Promotion (IMP) Projects
- Support to the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
- The Antarctic Funding Initiative (both support and participation)
- Lifetime of Halley Project (monitoring the iceshelf on which the Station is built)
- Science Infrastructure (Well Found Laboratories)
- BAS Collaboration Fund (BCF)

10.4 Grants, Commissioned and Co-funded Research. BAS supplements its resources through applications to a wide range of funding bodies including NERC thematic & non-thematic rounds, the Antarctic Funding Initiative (AFI), European Union, Leverhulme Trust and other Research Councils. Opportunities may arise to undertake commissioned research or co-funded research for government departments, overseas agencies or private industry. Staff are encouraged to seek additional funds to carry out work that either complements the BAS core programme or can be seen as innovative work that might sow important seeds for new developments. However, the impact of additional projects on core activities needs to be considered carefully. BAS recognises that some projects may be delivered more effectively if PDRAs are used, and with the associated overheads helping the overall budget.

**10.5 Preparing Submissions for External Funding.** Staff must discuss emerging ideas for external funding bids with their line manager, Science HOD and PI at the earliest possible juncture, and they must have an outline-bid approved by the relevant HoD(s) and PI(s) for all BAS-led proposals. The relevant Science HoD, PI when appropriate, and the Director must also approve all bids before submission. BAS aims to increase the success rate of BAS-led grant proposals to one comparable to high-performing universities and institutes in the UK and has established a light-touch support mechanism for grant proposers. The Science Coordination Group (SCG) can provide advice on procedures and potential sources of funds whilst Finance will assist with costings. The SCG and Finance should also be consulted by staff well in advance of grant deadlines to ensure they are aware of the new procedures and timescales for electronic submissions and Full Economic Costing (FEC).

10.6 Science Review. BAS established an Integrated Programme Review Committee (IPRC) in 2001 to monitor all core-funded science programmes. The IPRC is chaired by Lord Oxburgh and has a high quality national and international membership to give BAS independent advice on the progress and quality of programme delivery. The first review of GSAC will be in Autumn 2004.

10.7 Reporting on Antarctic Science in the Global Context (ASGC). BAS has a structured approach to reporting the outputs of the previous quinquennial programme, ASGC, to NERC, the wider science community and the general public. The reports will highlight major achievements that have:

- Opened up new science areas.
- Solved major problems in specific areas.
- · Changed approaches in the international community.

Each ASGC Programme will produce synthesis papers to be published in high impact journals, and BAS will publish an overall document summarising ASGC achievements by September 2006.



### II. Collaboration and Partnerships

11.1 UK Collaboration. BAS is intent on continuing to develop strong links and collaborations within the UK, across NERC, with Higher Education Institutes (HEIs) and with Government departments. The existing scientist-to-scientist collaborations with NERC Research Centres provide a foundation for further developments in GSAC. Action continues to agree strategic partnerships with HEIs, in addition to those in place with Bristol, UCL and UEA. All such arrangements will be codified, normally in Letters or Memoranda of Understanding (LOUs or MOUs), under the process managed by the SCG. The GSAC financial allocations provided money for a BAS Collaboration Fund to facilitate better collaborative links.

11.2 International Leadership. The leadership of international partnerships is a strategic BAS priority, in line with NERC's requirement for Research Centres to provide a focus for international cooperation and the coordination of major programmes solving complex scientific problems. BAS encourages its staff to be proactive in hosting international conferences and in the development of links in the international arena, building on the Survey's world-class science programme and its leadership role for the UK in Antarctic affairs which includes maintaining a prominent role within the Council of Managers of National Antarctic Programmes (COMNAP), BAS has a strategic alliance with China and plans to develop ones with NASA's let Propulsion Laboratory in the USA. BAS is seeking to manage at least one large, international scheme under the European Commission's Framework Programmes, and is hosting the International Programme Office for the International Polar Year.

### 12. International Polar Year (IPY 2007- 2008)

12.1 The IPY 2007-2008 is an exciting and challenging concept which will take place 50 years on from the 1957/58 International Geophysical Year. Over 60 nations, and many of the key international science groups, have committed to IPY 2007-2008 which is sponsored by the International Council for Science (ICSU) and the World Meteorological Organisation (WMO). In response to an Announcement of Opportunity, over 1000 Expressions of Intent for IPY 2007-2008 research activities have been put forward world-wide. The spending on these activities is likely to exceed \$2Bn.

12.2 BAS is taking a leading role in the IPY 2007-2008. Director BAS is a member of the Joint Committee established by ICSU and WMO to oversee the planning and implementation of the programme. The International Programme Office, located at BAS Cambridge, is funded by NERC. IPY 2007-2008 offers excellent opportunities for collaborative science and BAS is part of a successful consortium bid that will study aspects of Arctic physical oceanography that is complementary to GSAC. BAS maintains a central overview of the Survey's overall IPY involvement and commitments through the SCG to ensure that it is in balance with the remainder of the programme.



### 13. Antarctic Funding Initiative (AFI)

Some £1.5M/year was set aside from the annual BAS financial baseline to fund AFI. The Initiative is administered by NERC, but with a coordinator located at BAS to deal with day-to-day liaison with grant holders and other interested parties. AFI supports proposals for research grants for field work in the Antarctic from BAS staff, UK universities and other NERC Centres/Surveys. The BAS Science and Management Audit (SMA) in September 2002 concluded that AFI is working well and is set at the appropriate long-term level. The financial arrangements and BAS AFI allocations are at Table 14. Further details on the AFI programme are available on http://www.antarctica.ac.uk/afi. BAS will codify the procedural relationships with NERC for the management of AFI during 2006. AFI Round 8 was deferred one year by NERC Council's reprioritisation exercise; the Announcement of Opportunity will be in May 06 and will be the first under FEC.

### 14. Knowledge Transfer - Commercialisation

BAS is committed to supporting the Government objectives to increase the transfer of science and technology knowledge to the private sector for the commercial benefit of the UK as a whole. NERC has formed a partnership with ISIS Innovation Ltd, the technology transfer company of the University of Oxford, to provide expertise in taking ideas to the commercial market. ISIS and the NERC exploitation scouts work together to help research centres identify and develop ideas. NERC sets commercialisation targets for research centres, such as the number of new commercial ideas generated and the number of innovation awards. Commercialisation is neither easy nor quick, and it requires significant resources which NERC helps provide. BAS takes the view that there must be a champion to drive an idea forward if it is to have a serious chance of success. BAS is pursuing several initiatives including software systems and the sale of images.

### 15. Research Studentships within BAS

15.1 BAS is committed to maintaining a vibrant community of research students within the organisation. Research students are seen as vital to the maintenance of strong research groups and project teams, and thus to the achievement of key aspects of the BAS Vision. It is our aim to maximise the benefits of having students at BAS, within the normal bounds of efficiency and sustainability. Measures are in hand to ensure that the number of students is maintained at a manageable level.

15.2 The principles for admission of students were agreed by the BAS Board in January 2006. All aspects of the management and training of students are contained within the BAS Student Manual, which is placed on the Intranet. Students entitled to undertake Antarctic fieldwork are limited to those on AFI Projects and, exceptionally, through the Collaborative Gearing Scheme. BAS currently enjoys recognised research institute status with both the Open University and the University of Cambridge. BAS will normally agree joint studentships with University Departments rated as 5-star or equivalent. For further information on students see: http://basweb.nercbas.ac.uk/information/student-information.



### 16. Information Management

**16.1** The BAS Information Management Strategy Committee (IMSC), established in 2004 and now chaired by the Deputy Director, develops and oversees the strategies for the management of all BAS data and information (http://basweb.nerc-bas.ac.uk/irm/strategies.html). The IMSC provides the links into the Corporate NERC Information Management process, and it is supported by committees focusing on specific information aspects to produce a coherent approach to meeting IT, data, web and communication needs. BAS recognises the value of its data holdings and will be working, through the Antarctic Environmental Data Centre, with other NERC data centres to make them more accessible to users worldwide.

**16.2** BAS aims to improve continually the ways in which data and information are managed. Having already established data management plans for all new science projects, initiatives will continue to develop a more co-ordinated approach to data management. During 06/07 contact will be made with Antarctic Funding Initiative (AFI) researchers to ensure that they are aware of their data management responsibilities.

## 17. Support to the Foreign and Commonwealth Office (FCO) and Other Government Departments

**17.1 FCO.** BAS provides a range of support to the FCO as part of its mission to sustain for the UK an active and influential regional presence and a leadership role in Antarctic affairs. This includes administrative responsibilities for the British Antarctic Territory. Care is needed to distinguish between the support provided from BAS resources and that which is provided to the FCO on repayment. Any new requests for FCO support that have additional resource implications should be referred to the Directorate.

17.2 The UK is hosting the Antarctic Treaty Consultative Meeting (ATCM XXIX) in Edinburgh from 12-23 June 2006. In parallel with the business meetings that make up ATCM, BAS is working with the FCO and a number of key stakeholders in Scotland to create a high-profile public engagement campaign that 'brings Antarctica to Edinburgh'. This important UK event is an opportunity to raise awareness of the role that FCO Polar Regions Unit plays in administering UK Antarctic Policy and to fulfil BAS science communication objectives.

17.3 BAS also has a responsibility to provide scientific advice to policy makers in other Government Departments and Non Governmental Public Bodies, such as the Environment Agency. For example, DEFRA is particularly interested in the results of BAS research on climate change, the ecosystem management of fisheries, conservation of albatrosses and petrels, and the environmental sustainability of BAS activities in Antarctica. BAS plans to increase its efforts to transfer BAS science results into these policy fora.

### 18. Science in Society

BAS is engaged in a wide-ranging body of activities to bring home the importance of Antarctic science to the general public. In addition to a proactive media relations programme, BAS hosts an Artists and Writers Programme which is run jointly with Arts Council England; the Programme is designed to bridge the gap between the worlds of science and the arts, and is open to all types of British scholars and practitioners from the humanities. BAS is also developing innovative educational partnerships to reach young people, and there are plans for this at ATCM Edinburgh. The BAS web site provides more educational material with particular emphasis on primary education: <a href="http://www.antarctica.ac.uk/Resources/schoolzone/index.html">http://www.antarctica.ac.uk/Resources/schoolzone/index.html</a>

### 19. Management of Externally-Funded Projects

19.1 Whenever appropriate, BAS manages its externally funded projects separately and transparently, with discrete income and expenditure tables. The main projects handled in this manner are the NERC Arctic Station and South Georgia. The fundamental principle, however, is that all external arrangements with a call on BAS resources are codified through a MOU or LOU.

19.2 South Georgia. BAS took over the UK's presence at King Edward Point (KEP) in South Georgia from the Ministry of Defence in March 2001. The arrangements that define this commitment are set out in an MOU between BAS and the FCO and the Government of South Georgia & the South Sandwich Islands (GSGSSI). The MOU requires BAS to operate a directed programme and a research station at South Georgia for the FCO and the GSGSSI. The South Georgia Project does not spend money from the Science Vote, and the use of BAS resources, such as ship time, is charged to the Project; the Project budget is summarised at Table 11. The KEP station is not available for BAS core science activities.



# 20. Environmental Management



20.1 Environmental Office. Environmental issues have increasing prominence within the Antarctic Treaty System, and 'minimising our effects on the environment' is a strategic priority to achieve the BAS Vision. The BAS Environmental Office acts as a catalyst for environmental activity, with any appropriate research organised jointly with the science divisions. BAS will seek ISO 14001 accreditation for the Cambridge site and the ships during 06/07.

20.2 Abandoned Facilities. BAS has completed a major programme of work to remove abandoned facilities and waste dumps to satisfy Antarctic Treaty requirements. The removal of other legacy facilities or old buildings from Antarctica and South Georgia, when bases are redeveloped, is now part of business as usual. Funding is provided from 'provisions' in the NERC accounts.

20.3 Sustainable Energy. BAS still has much to do to implement its sustainable energy strategy that was agreed in 2002. Energy monitoring equipment is being installed at stations and a greater emphasis is being placed on the need to manage energy demand on base. Sustainable energy solutions will be introduced on stations and at BAS Cambridge, as finances allow. A Sustainable Energy Engineer post has been recruited to support the Building Section and the Environmental

20.4 'Greening of NERC'. BAS is fully involved with the corporate group that is taking forward the initiative known as the 'Greening of NERC'. Action continues to improve the way in which NERC and its Research Centres manage their activities in an environmentally-friendly manner. BAS is able to bid to NERC for additional 'green' funds, with appropriate consequential savings being paid to Swindon Office.





## 21. Finance

**21.1 Income and Expenditure.** BAS income and expenditure over the 4 years to 2009/10 are summarised at Table 1. The figures reflect the Council approved allocations for GSAC, Halley VI funding, NERC's developing capital strategy and overspends from previous financial years. Pay expenditure is indexed for inflation but otherwise budget holders are expected to absorb the impact of inflation either by securing better value for money or through increased efficiency.

**21.2** Affordability of the BAS Programme. Whilst there are a number of uncertainties, the BAS Board judge that the budget is balanced and broadly manageable. Fuel price volatility is a key risk and BAS provides an extra £400k/yr for fuel above the GSAC base line assumptions. The cost of Brent crude provides a form of 'proxy' price of fuel, but this is only a broad indicator because the purchase price is also affected by exchange rates fluctuations and by where the fuel is bought. Each \$1 change in the average Brent crude price roughly equates to about £35k/year in BAS fuel expenditure. NERC provides additional corporate funding to help BAS (and the Research Ships Unit) pay for actual fuel costs.

**21.3 Managing BAS Budgets.** BAS budget managers are effective in managing within their financial allocations. The Survey strives to improve further the way in which it now has to manage capital and resource expenditure separately. Action will therefore continue with budget holders to achieve better forecasting and to ensure that all allowable expenditure is capitalised. The BAS Board imposes appropriate expenditure controls during a financial year if that is necessary to avoid forecast overspending.

21.4 NERC Funding Framework (NFF). The NFF is a NERC business tool for strategic resource management and monitoring to provide a more level playing field for funding awards; opening-up funding opportunities to greater competition; facilitating collaboration between Research Centres, with stakeholders, across the NERC/university boundary, and between Research Councils. The NFF has 10 categories including strategic data & knowledge, research centre capability, infrastructure and science & society. These categories are used in the NERC plans but not in this Plan because they are not applicable to budget-holder management within the Survey.

21.5 Capital Investment Programme. The summaries of projected capital and other significant expenditure by division are at Tables 8-10. Whilst the inclusion of an item in a table means that money has been provisionally earmarked, that does not imply that the project has been approved. Appropriate formal approval to proceed is required before a budget holder commits funds. Options, supported when necessary by investment appraisals, are likely to be required for the larger projects - especially for enhancements to the logistic infrastructure. The Head of Finance chairs a Capital Strategy Group, with Division Heads, to monitor progress through the year.

**21.6 Pricing Guidance.** Table 17 provides costing and pricing guidance when bidding for external funds or tasks. Special arrangements apply to certain schemes, such as EU and AFI, whilst others involve a judgement within the overall public accounting guidelines. Advice should be sought from the Finance Section or Head of Administration & Logistics when required. Changes to UK Research Council Grant applications, to incorporate a percentage of full economic costs, came into effect in September 2005. Bids to use a proportion of any overheads won are not permitted because of the Survey's overall financial position.

21.7 Flexibility. Some 2% has been allowed in the budget to provide management flexibility to deal year-on-year with unexpected demands, essential infrastructure upkeep and new needs. This flexibility is under pressure, and most of the money may have to be allocated to already known essential requirements, such as the upgrading of ships' systems. Further flexibility funds will thus need to be generated by improved efficiency and by winning more external income. NERC has also introduced an annual bidding process to fund larger capital requirements. The Board will consider the affordability of priority requirements for the next Business Plan before the end of 2006.

**21.8 Funding Allocation and Budgeting (FAB).** The NERC FAB Project should be completed in 2006. The main purposes of FAB are to enable:

- a. NERC Council to drive the delivery of strategy
- b. Strategic collaboration across the science community
- c. Greater flexibility and transparency as priorities change

BAS staff are involved in supporting the FAB Project, and the results are likely to shape how the Survey puts forward its bid for the next Quinquennial programme.



### 22. Supporting Science

- **22.1** The maintenance of research stations, ships, aircraft and well-found laboratories is funded in accordance with the Planning Assumptions at Table 16. The planning for field operations seeks to optimise the use of the logistic infrastructure for approved science and its support, within the available capacity and funds. The Operations Group will continue to improve the effectiveness of the planning and coordination of field activity and the management of aircraft, ship and research station programmes.
- **22.2 Project Management.** NERC has adopted PRINCE 2 as its project management methodology. BAS has used this approach since 2001 and continues to apply it widely. All capital acquisitions are assessed to establish those that need to be managed as formal projects.
- **22.3 Shipping.** BAS shipping operations are complex, effective and widely regarded as being delivered in a professional manner; they consume nearly a quarter of BAS resources. The scope for improvements in the planning, management and support of marine operations is therefore kept under regular review by both BAS and NERC. The BAS objectives for shipping during 2006/07 include:
- The improved understanding of ship-related costs, especially to help validate the charging rate for the NERC use of the ICR.
- Strengthening the recent improvements in the way Cambridge and the ships work together:
- Using the Ships Planning Group as the mechanism for thinking through longer term issues.
- **22.4 Rothera.** Following independent advice, a phased redevelopment programme has been established for Rothera. This will be a major undertaking over a number of years, including the replacement of site services and the introduction of sustainable energy solutions. Progress will depend on when money is available. The first phase of redevelopment started in the 05/06 season for completion in 06/07.
- **22.5** Halley. The Halley station has to be replaced and the existing station (Halley V) demolished by 2010, because of the risk of the iceshelf calving. The focus in 06/07 will be to take forward the revised delivery strategy that NERC Council has approved. To make the Project affordable, this combines the construction and demolition phases while maintaining the innovative design for the new station. Further action will be required to minimise the impact of suspending some of the science at Halley V for 2 years. The first work on site is planned for the 07/08 season with completion in 09/10.
- **22.6 Staff Development and Training.** BAS is committed to improving staff development and training. Throughout this process of continuous improvement there is the need to maintain the emphasis on good communication both up and down the line management chain, with section heads and science group heads playing a pivotal role. The BAS Board conducts annual formal reviews of training & development and personnel issues. The BAS focus for staff training and development in 2006/07 is:
- Line Management
- Team Skills
- Selection Panel Skills
- **2.7** Appraisals and Forward Job Plans. BAS has separate appraisal processes for Cambridge-based staff, aircrew, seafarers and those on Antarctic contracts because their circumstances are so different. But,

- the purpose of appraisal is the same for everyone. Effective appraisal enables staff and line managers to consider performance, review what has been achieved, agree the tasks to be done in the period ahead (i.e. a Forward Job Plan (FJP)) and identify developmental needs. BAS will ensure that all staff have an agreed FJP and Development Plans in place and ensure that line managers carry out both constructive appraisal and the provision of regular feedback to their staff throughout the year. NERC is seeking upper quartile performance for upper quartile public sector pay, and line managers are expected to provide timely help and guidance if performance is weak in any area.
- **22.8 Electronic Records Management System (ERMS).** BAS is committed to managing business information through ERMS, which was implemented in 05/06. It is recognised that the resulting cultural change will need directing well beyond the initial implementation of the software.
- **22.9 Website.** BAS recognises that the web is a key mechanism for communication and aims to update and re-design the external website during 06/07. This project will be overseen by the Web Management Group, which has recently been formed to provide strategic management and oversight of the BAS website.

### 23. Mandatory Requirements

- **23.1** BAS is determined to implement employment, safety and other workplace legislation effectively and pragmatically. This includes maintaining a culture that is ethical, non-discriminatory and safety conscious.
- **23.2 Safety.** BAS aims to be positive, open, pragmatic but compliant in its approach to health and safety. BAS safety policy is firmly embedded in the NERC Safety Management System, tailored in detail to meet the special needs of the BAS operation. A 'just' approach to accident, incident and near-miss reporting (all of which is done on-line) allows our safety performance to be improved through lessons learnt from experience. BAS commissions an independent audit of its safety performance once per year. BAS will seek ISO 18001 accreditation for the Cambridge site and the ships during 06/07.
- 23.3 International Safety Management (ISM). ISM is an international maritime safety standard that all ship operators must meet. BAS Cambridge, the James Clark Ross and the Ernest Shackleton achieved initial accreditation during 2002. The Maritime & Coastguard Agency now audits Cambridge annually and the ships every 21/2 years. These audits also cover the International Ships and Ports Security Code (ISPS).
- **23.4 Antarctic Permits.** BAS activities in Antarctica are regulated by FCO permits under the Antarctic Act 1994. This requires the regular re-approval of BAS activities, including permission for significant changes, such as major new science projects. All planning for science projects and programmes and their support must satisfy the permitting regulations. BAS works with the FCO to simplify the bureaucratic processes for permitting.
- **23.5 South Georgia Permits.** The Government of South Georgia and South Sandwich Islands (GSGSSI) is introducing a permitting regime similar to that used for Antarctica. BAS is working with GSGSSI to agree the procedures to apply from the 06/07 season.
- **23.6 Risk Management.** NERC has a risk management policy and a risk strategy to meet Treasury corporate governance requirements. The

purpose is to ensure that organisations identify, evaluate and manage their key risks. Head of Administration and Logistics is the BAS Risk Manager, and the risk register is on the Intranet (http://basweb.nerc-bas.ac.uk/busplan/risk-register.pdf). All BAS Board papers include a mandatory assessment of the risk implications. BAS also inputs into the NERC risk assessment process.

**23.7 Business Continuity Management.** The BAS Incident Plan is the Survey's main Business Continuity Management (BCM) mechanism to meet NERC-wide corporate governance requirements. The Plan provides a flexible response to unexpected events that are not covered by standard management practices such as system redundancy and the off-site back-up of data.

23.8 Research Councils Shared Services. The Government has made it clear, through its "Transformational Government - Enabled by Technology" strategy and guidance on the 2007 Comprehensive Spending Review, that it expects all public sector organisations to look hard at the opportunities for sharing services. By 2009, the Research Councils are due to have incorporated a Shared Service Centre (SSC) to deliver services to all the Councils. A SSC is a centre that typically provides administrative support in the areas of Human Resources, Information Technology, Finance, and Procurement to a large number of employees through common, streamlined and usually system-based approaches. A SSC carries out the transactional activities, leaving the customers e.g. NERC and BAS to give priority to policy formulation and strategy, programme delivery, governance and accountability functions. BAS will be supporting the work leading to the establishment of the Research Councils' SSC.

### 24. Objectives and Performance measurement

**24.1 BAS Objectives.** Table 18 lists the Business Plan performance and change objectives. The purpose of the objectives is to identify those activities, either across divisions or within a division, that are judged by the BAS Board as important to the aims and support of the Survey. The objectives are also designed to provide a continuity of purpose over a number of years; they are given priority when deciding the allocation of resource and/or management effort. The BAS Board regularly reviews the objectives and the target dates in the light of experience.

**24.2 Performance Measurement.** The BAS performance measurement system enables the Board to review progress quarterly against the Business Plan objectives in Table 18. The BAS Instrument Panel (BIP) is also used to provide a broad range of high level indicators, covering the delivery of science and support, financial performance, change of activity and personnel issues, to give a balanced picture of performance across the Survey. A key purpose of the BIP is to drive action to achieve the BAS Vision by 2012. These two performance measurement systems allow BAS senior management to monitor progress and adjust priorities or the allocation of resources.

**24.3 NERC Performance and Delivery.** NERC is required to report on its performance to the Office of Science and Innovation. BAS takes an active role in supporting the development of NERC's plans and in reporting achievements to Swindon Office.





	06/07 £000's	07/08 £000's	08/09 £000's	09/10 £000's	Four Year
	Budget	Plan	Plan	Plan	Totals
INCOME - Allocation			450	450	242
International Polar Year	157	151	152	153	613
Core Infrastructure	25,777	24,716	23,426	23,803	97,722
Green Funds RRS Ernest Shackleton	42 1.700	1.700	1.700	1.700	42 6.800
GSAC Science Resource	9,806	10,134	1,700	1,700	42,183
GSAC Science Resource	1,101	766	232	225	2.324
Arctic Station	151	155	159	164	629
NERC use of JCR (Note 1)	708	724	741	759	2,932
Bases environmental clean-up	572	1,659	1,651	7,000	10,882
Twin Otter Repairs	(100)	(100)	(100)	(100)	(400)
To recover 04/05 & 05/06 overspends	(770)	(110)	(100)	(100)	(880)
Core Capital	1,691	1,528	3,419	4,774	11,412
NERC Capital Strategy	- 1,001	572	(785)	(2,133)	(2,346)
Halley VI (Note 2)	7,340	9,850	2,460	(2, .00)	19,650
Rothera Redevelopment Phase 1	2,420	180	-,	-	2,600
Total Allocation (Note 3)	50,595	51,925	44,023	47,620	194,163
	,	- ,	,	,	- ,
Other Income					
External	3,027	2,622	2,677	2,576	10,902
Internal	1,110	754	677	668	3,209
Total Other Income	4,137	3,376	3,354	3,243	14,111
TOTAL FUNDS AVAILABLE	54,732	55,301	47,377	50,863	208,274
EXPENDITURE					
Science (Core Programme)	11,302	10,735	10,248	10,208	42,494
Science (Externally funded)	551	422	376	93	1,442
AFI	304	396	265	354	1,319
Support	41,071	41,849	33,808	37,425	154,153
Arctic Station	151	155	159	164	629
South Georgia	1,246	1,056	1,248	1,034	4,584
Port Lockroy	17	- 10	-	-	17
Transitional funding - Antarctic Allowances Flexibility	90	10 678	1 272	1 505	100
Flexibility	-	6/8	1,273	1,585	3,536
TOTAL EXPENDITURE	54,732	55,301	47,377	50,863	208,274
TOTAL EXPENDITORE	34,732	33,301	41,511	30,803	200,274
NET DEFICIT (SURPLUS)		_	_	_	_
			!		
RESOURCE	41,385	42,944	43,525	49,000	176,855
	1 ' '	·	, · ·	, ,	,
CAPITAL:					
CAPITAL : Tables 8 and 10A	12,547	11,193	3,152	1,419	28,310
	12,547 800	11,193 1,164	3,152 700	1,419 445	28,310 3,109
Tables 8 and 10A Major Projects Table 9	800	1,164	700	445	3,109
Tables 8 and 10A		,	, ,	,	

### Notes:

<sup>(1)</sup> Figures to be uplifted to reflect actual costs in negotiation with NERC.(2) Halley VI spend will be reprofiled during 06/07.(3) Includes an inflation allocation.

## **INCOME SUMMARY**

	06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
EVERNAL CIONED				
ES Summer Charter	926	926	926	926
Dutch at Rothera	85	926 85	926 85	926 85
FCO for BAT	50	50	50	50
APC	19	19	19	19
South Georgia	1,144	1,148	1,152	1,156
South Georgia - banking b/f	102	0	93	- 3
Port Lockroy	17	_	-	-
Total	2,343	2,228	2,325	2,233
EXTERNAL - PREDICTED				
Ship hire estimated	50	50	50	50
South Georgia overheads	220	229	224	233
Framework 6	102	56	18	-
Other external projects	23	-	-	-
EID Income	179	18	20	20
Miscellaneous & disposals	30	30	30	30
Arts Council	10	10	10	10
Logger Production	70	-	-	-
Total	684	394	352	343
TOTAL EXTERNAL INCOME	3,027	2,622	2,677	2,576
INTERNAL INCOME				
NERC Research Grants	312	225	293	32
AFI non Thematic confirmed	228	319	110	85
AFI non Thematic estimated	-	-	75	188
AFI Project Management	64	65	67	68
AFI CGS Costs	12	12	13	13
AFI Infrastructure Costs (NAV)	57		-	-
Clean Up Ship Time	178	122	108	269
Port Lockroy overheads	1		- 40	-
Arctic Station overheads	11	11	12	12
Linux TOTAL INTERNAL INCOME	246 1,110	754	677	668
TOTAL INTERNAL INCOME	1,110	7 54	611	000
TOTAL INCOME	4,137	3,376	3,354	3,243

## **STAFF COST PROFILE**

	06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
SCIENCE - BAS BSD				-
Basic Pay	2,124	2,164	2,205	2,246
National Insurance	173	176	179	183
Pensions	418	426	434	442
Allowances	166	172	156	156
	2,881	2,938	2,974	3,026
Turnover Allowance - BSD	(54)	(55)	(56)	(57)
TOTAL BSD	2,826	2,883	2,917	2,969
<u>GSD</u>				
Basic Pay	875	891	908	925
National Insurance	72	74	75	77
Pensions	188	191	195	199
Allowances	59	74	26	26
	1,195	1,231	1,204	1,226
Turnover Allowance - GSD	(23)	(23)	(24)	(24)
TOTAL GSD	1,172	1,207	1,180	1,202
<u>PSD</u>				
Basic Pay	2,726	2,777	2,829	2,883
National Insurance	231	235	239	244
Pensions	543	553	564	574
Allowances	210	209	120	120
	3,710	3,775	3,753	3,821
Turnover Allowance - PSD	(70)	(71)	(73)	(74)
TOTAL PSD	3,640	3,704	3,680	3,747

continued next page

SUPPORT DIVISIONS - BAS				
EID				
Basic Pay	729	743	757	771
National Insurance	58	59	60	61
Pensions	154	157	159	162
l chaidha	134	107	109	102
Allowances	26	14	26	14
Miowarioes	20	, ,	20	'-'
	967	972	1,002	1,008
			1,000	1,000
Turnover Allowance - EID	(19)	(19)	(20)	(20)
	` ′	, ,	, ,	` '
TOTAL EID	948	953	983	989
Administration & Logistics				
Basic Pay	7,521	7,662	7,805	7,952
National Insurance	<sup>*</sup> 597	609	620	632
Pensions	1,285	1,309	1,334	1,359
	,,_,	,,,,,,	1,221	,,,,,,
Allowances	511	511	511	511
			_	
	9,914	10,091	10,270	10,453
	-,-	-,		-,
Turnover Allowance - ALD	(188)	(192)	(195)	(199)
	` ′	` ′	` '	`
TOTAL ALD	9,726	9,899	10,075	10,254
TOTAL PAY				
Basic Pay	13,975	14,237	14,504	14,776
National Insurance	1,131	1,152	1,174	1,196
Pensions	2,588	2,636	2,685	2,736
Allowances	973	981	839	827
	18,666	19,006	19,203	19,535
Total Turnover Allowance	(354)	(361)	(367)	(374)
Antarctic allowance loan	90	10	-	-
TOTAL	18,403	18,656	18,835	19,161

### Notes

(1) The above figures do not include casual labour - these are included under the individual projects/cost centres.

(2) Allowances are delegated to Head of Division level.

For Information Only:

i or information only.				
External (No overheads)				
Total	1,100	1,120	1,141	1,163

	06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
COLEMOE				
SCIENCE	7.000	7 704	7 770	7.040
Pay	7,639	7,794	7,778	7,918
Programmes  Programmes  CAAC	4 200	4 4 5 7	04.0	004
Bioscience GSAC Bioscience external	1,320	1,157	918 18	891
Geosciences GSAC	58 366	51 432	377	344
Geosciences GSAC Geosciences external	500 5	432 5	5// 5	5 <del>44</del> 5
Physical Science GSAC	1,951	1,324	1,143	1,024
Physical Science GSAC  Physical Science external	488	366	353	88
EID GSAC	27	28	31	31
AFI	304	396	265	354
Al I	304	390	203	334
	12,157	11,553	10,889	10,656
SUPPORT DIVISIONS				
<u>EID</u>				
Pay	948	953	983	989
Operating Costs (inc Env Clean up)	1,221	2,137	2,146	7,505
<u>ALD</u>				
Pay	9,726	9,899	10,075	10,254
Administration	11,137	11,459	11,358	11,234
Technical Services	15,436	15,353	7,179	5,414
H&S and Cambridge Facilities	2,603	2,047	2,067	2,029
	41,071	41,849	33,808	37,425
TOTAL Science & Support	53,228	53,402	44,696	48,081
External, AA & Flexibility	1,504	1,898	2,680	2,783
TOTAL EXPENDITURE	54,732	55,301	47,377	50,863
TOTAL EXPENDITURE	54,732	J5,3U1	41,311	30,003
INCOME	54,732	55,301	47,377	50,863
NET DEFICIT (SURPLUS)	-	-	-	-

## Notes:

(1) No transfers have been made into Halley 6 from divisions - this will follow

Table 4B SUMMARY OF ALD EXPENDITURE BY LOCATION, SHIP & AIR

	06/07	07/08	08/09	09/10
	£000's	£000's	£000's	£000's
	Budget	Plan	Plan	Plan
ALD Pay	9,726	9,899	10,075	10,254
Locations Bird Island Signy Rothera Halley Stanley Ships	195	144	124	153
	185	212	112	112
	4,332	2,081	1,932	2,025
	8,424	10,684	3,295	931
	122	125	125	125
	13,257	13,246	5,588	3,346
JCR ES	3,423 5,225 8,648	3,682 5,176 8,858	3,334 5,084 8,418	3,398 5,105 8,503
<b>Air</b> Dash 7 Twin Otters	492	575	564	489
	1,320	1,274	1,134	1,104
	1,812	1,848	1,697	1,592
Facilities Management Directorate Science Coordination Group IPY RASOR Linux Cambridge	1,574	1,038	1,058	1,020
	132	129	135	135
	162	262	267	271
	157	151	152	153
	57	-	-	-
	246	-	-	-
	3,131	3,329	3,290	3,658
TOTAL	38,902	38,759	30,680	28,931

		06/07 £000's	07/08 £000's	08/09 £000's	09/10 £000's
		Budget	Plan	Plan	Plan
Science - non pay					
Science - non pay					
Programme	Programme Leader (1)				
ACES	John King	410	251	183	183
BIOFLAME	Lloyd Peck	282	283	140	124
CACHE	Eric Wolff	463	311	306	241
DISCOVERY 2010	Eugene Murphy	477	439	392	365
GEACEP	Alan Haywood	120	124	108	91
GRADES	David Vaughan	183	235	178	178
NC	Mervyn Freeman	98	98	98	98
SEC	Richard Horne	277	139	99	99
IMP-B	Andrew Clarke	23	23	23	23
IMP-B	Lloyd Peck	15	15	15	15
IMP-P	Richard Horne	15	15	15	15
IMP-P	Eric Wolff	15	15	15	15
LTMS-B	Andy Wood	204	181	150	150
LTMS-G	Phil Leat	15	15	17	17
LTMS-M	Adrian Fox	27	28	31	31
LTMS-P	Mike Pinnock	283	187	217	172
WFL-B	Andy Wood	292	201	180	180
WFL-G	Alistair Crame	84	99	83	83
WFL-P	Mike Pinnock	383	283	220	210
EXTERNAL BSD		58	51	18	-
EXTERNAL GSD		5	5	5	5
EXTERNAL PSD		488	366	353	88
		4,214	3,364	2,846	2,384
				_	_

## Notes:

<sup>(1)</sup> Budgets delegated through divisions not to Principal Investigators

Table 6
SUMMARY OF TOTAL EXPENDITURE BY PROJECT
Includes Casual but no other payroll

		06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
Programme	Project				
GSD GSAC					
	BIOPEARL-G	28.50	38.30	36.20	20.30
	ISODYN	119.50	124.00	108.40	91.10
	LTMS-G	14.60	14.91	17.10	17.10
	PEP-G	31.32	35.52	31.32	31.32
	QWAD	88.39	121.14	101.54	101.54
	WFL-G	83.80	98.51	82.70	82.70
GSD EXTERNAL					
	STUA	5.00	5.00	5.00	5.00
BSD GSAC					
	BIOPEARL-B	26.60	30.10	23.70	23.70
	BIOREACH	227.20	214.60	80.20	80.20
	CEMI	91.00	129.00	109.00	82.00
	FLEXICON	179.00	140.00	129.00	129.00
	FOODWEBS	172.00	135.00	124.00	124.00
	ACAIMP LPIMP	23.00	23.00	23.00	23.00
	LTMS-B	15.00 204.00	15.00 181.31	15.00 150.40	15.00 150.40
	OEM	35.00	35.00	30.00	30.00
	PEP-B	55.64	53.34	54.34	54.34
	WFL-B	291.53	201.10	179.69	179.69
BSD EXTERNAL					
DOD EXTERNAL	CROZET	13.48	6.90	_	_
	SLEEPING BEAUTY	44.40	44.40	18.45	-
EID					
	LTMS-M	26.50	27.75	31.25	31.25

continued overleaf

	06/07 £000's	07/08 £000's	08/09 £000's	09/10 £000's
DOD 0010	Budget	Plan	Plan	Plan
PSD GSAC	20.42	00.00	25.02	25.02
ACCENT	39.12	66.92	35.92	35.92
CEFAC	204.71	70.01	39.10	29.50
DRAM	147.22	118.22	149.00	94.00
FOCAS	371.02	184.22	147.22	147.22
HOLISTIC	186.80	52.00	51.50	51.50
IMAGE	29.70	67.50	47.90	47.90
RHIMP	15.00	15.00	15.00	15.00
EWIMP	15.00	15.00	15.00	15.00
LTMS-P	283.20	186.91	217.30	172.50
NCP	97.76	97.76	97.76	97.76
PEP-P	24.50	34.00	32.00	32.00
TIGRIS	64.51	46.31	28.11	28.11
WARP	89.81	86.91	47.61	47.61
WFL-P	382.60	283.31	219.90	209.90
PSD EXTERNAL				
LIFEOFHALLEY	107.58	135.58	60.00	56.00
SPACEWEATHER	6.06	-	-	-
TSUSAT	14.74	_	_	_
OPRIS	39.11	16.91	_	_
AUIBSO	21.02	-	_	_
RAPIDISO	14.12	-	_	_
EPICAMIS	58.00	12.00	_	-
HIGEM	28.96	-	_	-
DYNAMICS	2.45	-	_	_
PIBMELT	55.43	69.11	101.63	30.95
LabFFs	39.99	22.09	61.23	-
GCEPS	46.45	47.99	49.70	-
QUESTDEGLAC	0.64	8.52	25.20	-
SOLCLI	53.23	53.79	54.75	1.34
TOTAL	4 24 4 4 7	2 262 04	2 946 40	2 202 02
IOTAL	4,214.17	3,363.94	2,846.10	2,383.83
TOTAL GSD (GSAC)	366.10	432.38	377.25	344.05
TOTAL GSD (EXT)	5.00	5.00	5.00	5.00
TOTAL BSD (GSAC)	1,319.97	1,157.45	918.33	891.33
TOTAL BSD (EXT)	57.88	51.30	18.45	-
TOTAL EID (GSAC)	26.50	27.75	31.25	31.25
TOTAL PSD (GSAC)	1,950.95	1,324.07	1,143.31	1,023.91
TOTAL PSD (EXT)	487.78	365.99	352.51	88.29

## SUMMARY OF TOTAL EXPENDITURE FOR SUPPORT DIVISIONS

	06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
Environment & Information:	Duaget	i iaii	i iaii	i iaii
HOD	19.38	22.18	22.18	22.18
MAGIC	31.90	29.95	36.65	33.45
Data & Web	125.17	18.98	17.48	18.99
Environmental Management	106.00	100.20	118.25	124.25
Press, PR & Education	129.50	92.70	84.80	91.80
Photographic Archives	32.40 35.90	31.40 36.10	32.40 36.10	32.40 36.10
Library	112.60	112.10	114.40	113.10
Artists & Writers	10.00	10.00	10.00	10.00
APC	18.92	18.92	18.92	18.92
IRM	27.46	5.00	3.50	3.50
Bases Environmental Clean up	572.00	1,659.00	1,651.00	7,000.00
·	1 22 1 22			
	1,221.23	2,136.53	2,145.68	7,504.69
PAY	947.78	953.06	982.67	988.61
TOTAL EID	2,169.01	3,089.60	3,128.35	8,493.30
Administration & Logistics: Central	72.30	72.30	72.30	72.30
Directorate	131.65	72.30 128.90	72.30 134.90	134.90
Science Coordination Group	162.00	261.75	266.50	270.75
IPY	157.00	151.00	152.00	153.00
Finance	72.65	64.65	68.65	68.65
Medical	717.63	728.40	772.32	742.32
Operations Group	289.64	284.14	284.14	284.14
Ships Operations	3,523.88	3,535.88	3,539.62	3,548.09
Diving	40.90	41.40	41.40	41.40
Stanley	121.50	125.00	125.00	125.00
Air	2,008.60	2,065.50	1,894.50	1,789.50
Personnel	617.90	606.90	612.40	608.90
Purchasing (1) AMOS	3,162.55 59.00	3,332.55 61.00	3,332.55 62.00	3,332.55 63.00
Total Administration	11,137.19	11,459.37	11,358.27	11,234.49
Health & safety	60.30	63.30	63.30	63.30
Office Services	968.50	946.00	946.00	946.00
Facilities Management	1,561.59	1,028.42	1,048.28	1,009.90
Management of FM Contract	12.20	9.70	9.70	9.70
Total H&S and Cambridge Facilities	2,602.59	2,047.42	2,067.28	2,028.90
Buildings	587.08	729.71	600.71	600.71
Rothera Redevelopment Project	2,462.00	180.00	-	-
Bird Island Redevelopment Project	33.30	-	_	_
Halley VI	7,340.00	9,850.00	2,460.00	0.00
Technology and Engineering Central	91.21	89.21	92.26	92.26
Airborne and Survey Technology	38.00	36.00	36.00	36.00
ICT - IT	561.50	598.50	562.50	870.16
ICT - Communications	386.50	451.50	546.50	706.50
Antarctic and Marine Engineering	2,901.70	2,947.03	2,492.51	2,437.51
Logger Production	50.00	-	-	-
Vehicles  PASOR (NERC Research Creat)	681.50	471.50	388.50	670.50
RASOR (NERC Research Grant) Linux (NERC Research Grant)	57.00 246.43	-	·	-
Total Technical Services	15,436.22	15,353.45	7,178.98	5,413.63
TOTAL	29,175.99	28,860.23	20,604.53	18,677.02
PAY	9,726.24	9,899.03	10,075.05	10,254.38
TOTAL ALD	38,902.23	38,759.25	30,679.58	28,931.39
TOTAL SUPPORT DIVISIONS	41,071.25	41,848.85	33,807.94	37,424.70
	11,011.20	11,540.00	00,007.04	01,12-1110

Notes:
(1) Includes base line fuel budget - will be adjusted by NERC in line with actual costs for MGO.

			06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
Administration	a P Logistics					
Administration BASES	i & Logistics					
BI	Buildings	Replacement Field Huts	-	20.00	-	-
	ICT - IT	Replacement IT system	-	-	-	25.00
DOTUEDA	Makida	Transfer Davids as as and	05.00			
ROTHERA	Vehicles	Tractor Replacement	25.00	-	75.00	75.00
	Vehicles Vehicles	Snowmobiles Replacements	72.00 28.00	-	75.00 28.00	75.00
	Vehicles	Gator ATV replacements  JCB 435 Replacement	125.00	28.00	26.00	-
	Vehicles	Overaasen Snowblower Rep	20.00	-	-	95.00
	Vehicles	Telehandler Replacement	20.00	65.00	_	33.00
	Vehicles	Nodwell 60 Crane Replacement	_	135.00	_	_
	Vehicles	Teletruc Replacement	_	30.00	-	_
	Vehicles	Marston Trailer Replacement	_	14.00	14.00	_
	Vehicles	JCB 456B Replacement	-	-	-	180.00
	ICT - Comms	Field Transceivers Repl	44.00	44.00	44.00	44.00
	ICT - Comms	Replacement VHF Repeaters	_	-	-	35.00
	ICT - IT	ITS SAN	70.00	-	-	-
	B. W.C.	E al El III as Davida assess (OTI)		55.00		
HALLEY	Buildings	Fuel Flubber Replacement (STI)	-	55.00	-	405.00
	Vehicles Vehicles	Snocat Replacement Bulldozer Replacement	95.00 140.00	-	-	105.00
	Vehicles	Snowmobiles Replacements	24.00	-	50.00	50.00
	Vehicles	Honda ATV Replacement	24.00	14.00	50.00	14.00
	AME	HRPT Receivers Halley	85.00	14.00	_	14.00
	,	That I reservoic Halley	00.00			
AIR		Stanley Hut	-	20.00	-	-
ES	ICT - IT	Replacement backup/data storage	-	35.00	-	-
	AME	HRPT Receivers	75.00	-	-	-
	AME	Emergency Call System	20.00	-	-	-
JCR	ICT - IT	Replacement backup/data storage	-	-	40.00	20.00
	ICT - Comms	Satcomm Replacement	-	-	30.00	-
	ICT - Comms	VSAT Replacement	-	-	-	150.00
	AME	HRPT Receivers	75.00	-	-	-
	AME	Emergency Call System	20.00	450.00	-	-
	AME	Replacement windows	150.00	150.00	100.00	70.00
CAMBRIDGE	ICT - IT	File Server Replacement	-	15.00	15.00	15.00
	ICT - IT	File and Data Disk Storage	55.00	55.00	55.00	55.00
	ICT - IT	Backup System Support & Replacements	25.00	25.00	25.00	55.66
	ICT - IT	Replacement Oracle Server	-	20.00	-	-
	ICT - Comms	LAN VoIP Cambridge Upgrade	-	50.00	-	-
	ICT - IT	Replacement High Performance Computer	-	-	-	250.00
	ICT - Comms Vehicles	Replacement LAN switches Mini digger/loader Sky-Blu	-	-	30.00	120.00
	Vehicles	Pedestrian snowblower Sky-Blu	-	-	40.00	-
	External	Linux Cluster	246.43	-	40.00	_
	External	RASOR Project	57.00	_	_	-
	Medical	Renewal of obsolete medical equipment	27.00	-	30.00	-
	FM	IT room upgrade	176.25	-	-	-
		ALD CAPITAL EXPENDITURE	1,654.68	775.00	576.00	1,358.66
		PLUS HALLEY VI		9,850.00	2,460.00	-
		PLUS ROTHERA REDEVELOPMENT PLUS BI REDEVELOPMENT	2,462.00	180.00	-	-
		PLUS BI KEDEVELUPMENT	33.30	-	-	-
		GRAND TOTAL	11,489.98	10,805.00	3,036.00	1,358.66

## SUPPORT DIVISIONS MAJOR PROJECTS

			06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
LOCATIONS						
ROTHERA	ICT - Comms	LAN upgrade & replacement	_	_	130.00	_
KOTTILKA	Vehicles	Rebuild Container Handler	_	35.00	-	_
	Buildings	Upgrade Fire Alarm System	-	24.00	25.00	25.00
	Buildings	Runway & wharf inspection & cond survey	-	-	45.00	45.00
SIGNY	Buildings	Slipway	70.00	100.00	-	-
ВІ	Buildings	Stand by fire pump	25.00	-	-	-
AIR						
DASH 7		Main Nav System Replacement	-	75.00	75.00	-
TWIN OTTERS	5	Gyro Replacement	45.00	45.00	-	-
		Main Nav System Replacement	65.00	65.00	-	-
		Rothera Ground Power Unit Replace	-	30.00	-	-
		HF Radio Replacement	-	30.00	30.00	-
		Technical records & aircraft audit	50.00			
SHIPS						
JCR	AME	Upgrade Winches	20.00	120.00	-	-
	AME	Replace Effer Cranes	-	-	-	120.00
	AME	Replace Electrical Control System	280.00	150.00	-	-
	AME	Voyage Logger	65.00	-	-	-
	AME AME	Bridge Replacements Air Handling Units Replacement	30.00	125.00 30.00	120.00	120.00
	AME	LTFW Coolers Replacement	30.00	200.00	-	-
	AME	Thruster Overhaul	-	200.00	120.00	-
	AME	CTD upkeep	50.00	90.00	90.00	90.00
	AME	GPS Replacement	5.00	15.00	5.00	15.00
	AME	Towed Proton Magnetometer	-	-	30.00	-
ES	AME	Voyage Logger	65.00	-	-	-
	AME	Bridge and DP upkeep	30.00	30.00	30.00	30.00
	SUPP	ORT DIVISIONS MAJOR PROJECT EXPENDITURE	800.00	1,164.00	700.00	445.00

PSD WAF WAF WAF HOL LTM LTM LTM WFL WFL WFL WFL CEF.	MS-B () MS-B () MS-B () MEACH L-B F MDYN E	Description  Continuous Plankton Recorder  CTD replacement - Rothera -80°C freezers (Roslin)  Refurb Cambridge Marine Aquarium  TOTAL BSD  Binocular stereozoom micro with digital camera  Transtec IDE Raid Disk Array Viglen dual-purpose processors for modelling studies	12.00 72.14 10.00	Plan - 25.00 12.00 - 37.00	Plan - - - -	Plan - - - -
GSD ISOD ISOD ISOD ISOD ISOD ISOD ISOD IS	MS-B (AS-B)  MEACH - L-B F  MODYN E	CTD replacement - Rothera -80°C freezers (Roslin) Refurb Cambridge Marine Aquarium  TOTAL BSD  Binocular stereozoom micro with digital camera Transtec IDE Raid Disk Array	12.00 72.14	12.00	-	- - -
GSD ISOE ISOE ISOE ISOE ISOE ISOE ISOE ISOE	DYN E	-80°C freezers (Roslin) Refurb Cambridge Marine Aquarium  TOTAL BSD  Binocular stereozoom micro with digital camera  Transtec IDE Raid Disk Array	72.14 <b>124.14</b>	12.00	-	<u>-</u>
PSD WAF	L-B F	Refurb Cambridge Marine Aquarium  TOTAL BSD  Binocular stereozoom micro with digital camera  Transtec IDE Raid Disk Array	124.14	=	-	-
PSD WAF WAF WAF WAF HOL LTM LTM LTM LTM WFL WFL WFL WFL WFL WFL CEF,	DDYN E	TOTAL BSD  Binocular stereozoom micro with digital camera  Transtec IDE Raid Disk Array		37.00	-	
PSD WAF WAF WAF WAF HOL LTM LTM LTM LTM WFL WFL WFL WFL WFL WFL CEF	DYN 7	Binocular stereozoom micro with digital camera Transtec IDE Raid Disk Array		37.00		
PSD WAF WAF WAF WAF HOL LTM LTM LTM LTM WFL WFL WFL WFL WFL WFL CEF,	DYN 7	Transtec IDE Raid Disk Array	10.00			-
PSD WAF WAF WAF WAF HOL LTM LTM LTM LTM WFL WFL WFL WFL WFL WFL CEF	DYN 7	Transtec IDE Raid Disk Array		-	_	-
PSD WAR WAR HOL LTM. LTM. LTM. WFL WFL WFL WFL CEF.		,	-	8.60	-	-
WAF			10.00	-	-	-
WAF			00.00	0.00		
WAF		TOTAL GSD	20.00	8.60	-	-
WAF HOL HOL LTM LTM LTM WFL WFL WFL WFL WFL WFL CEF	.RP \	VLF Precipitation Monitors	-	7.00	-	-
HOL HOL LTM. LTM. LTM. UTM. WFL WFL WFL WFL	RP F	Radiometer	28.50	-	-	-
HOL LTM LTM LTM LTM WFL WFL WFL WFL WFL	.RP v	workstation	-	20.00	-	-
LTM. LTM. LTM. LTM. WFL. WFL WFL WFL WFL CEF	LISTIC (	Geoelectric field instruments	60.00	-	-	-
LTM LTM LTM WFL WFL WFL WFL WFL	LISTIC S	Ship-borne imager	78.00	-	-	-
LTM LTM WFL WFL WFL WFL WFL CEF	/IS-P	Spectrometer to replace Dobson at Z	-	-	60.00	-
LTM: LTM: WFL WFL WFL WFL CEF:	/IS-P (	Oceanography - instrument moorings	30.00	-	-	60.00
LTM: WFL WFL WFL WFL CEF	//S-P	MOMU SAOZ replacement at R	40.00	-	-	-
WFL WFL WFL WFL CEF	//S-P	MOMU Instrument Replacement prog	48.00	48.00	48.00	-
WFL WFL WFL CEF	//S-P	MOMU AWS replacements	30.00	25.00	-	-
WFL WFL CEF	L-P (	Chemistry Lab refurbishment	30.00	-	-	-
WFL WFL CEF	L-P (	GPR (Radar) replacement	-	50.00	-	-
WFL CEF		Replace all survey GPS stations	30.00	-	-	-
CEF	L-P I	Instrument - refurbish AIRES	20.00	-	-	-
_	L-P I	Instrument - Dynasonde replacement	100.00	-	-	-
CEE	FAC S	Suite of 10 surface O3 sensors ruggedised	20.00	30.00	-	-
	FAC 2	2 autonomous blimps specially adapted for Antarctic use	25.00	-	-	-
CEF	FAC \	Workstation and computing equipment for modeller	-	-	8.00	-
CEF	FAC r	mini-MAX DOAS	12.00	-	-	-
CEF	FAC u	upgrade of existing coldstore (Cambridge)	50.00	-	-	-
FOC	CAS (	Unmanned Airborne Vehicles	10.00	10.00	-	-
FOC	CAS E	Beowulf computers	-	10.00	-	-
FOC		Ice nuclei counter	50.00	-	-	-
FOC	CAS 3	3 ice buoys	15.00	-	-	-
FOC	CAS 3	3 TOGA buoys	54.00	-	-	-
FOC		2 HOMER CTDs	40.00	-	-	-
FOC		2 moorings	80.00	-	-	-
		Upgrade to BEOWULF cluster	-	30.00	-	-
TIGF		Ruggedised field PC	6.00	-	-	-
TIGF		AWS	8.00	-	-	-
IMAC		Workstations	-	41.00	-	-
		GPS	48.00	71.00	-	-
		TOTAL PSD	912.50	342.00	116.00	60.00
		TOTAL SCIENCE CAPITAL ITEMS	1.056.64	387.60	116.00	60.00
		TOTAL OUILIOU OATTIAL ITEMIO	.,000.04	307.00	. 10.00	30.00

## SCIENCE DIVISIONS MAJOR PROJECTS

			06/07 £000's	07/08 £000's	08/09 £000's	09/10 £000's
Division	Project	Description	Budget	Plan	Plan	Plan
BSD	BIOREACH	Chroococcidiopsis sequencing	120.00	120.00	-	-
	CEMI	BCF Collaboration	56.00	84.00	84.00	57.00
		TOTAL BSD	176.00	204.00	84.00	57.00
GSD	ISODYN	BCF	50.00	66.00	50.00	50.00
	PEP-G	Hire of coring equipment - SOC RVS (12m)	-	20.00	-	-
	QWAD	Hire of coring equipment - SOC RVS (12m)	-	20.00	-	-
	QWAD	Studentship at Durham [BCF]	27.95	36.70	36.70	27.95
		TOTAL GSD	77.95	142.70	86.70	77.95
PSD	CEFAC	Joint costs for operating CIMS and consumables	45.00		_	_
. 52	DRAM	Statistician [BCF collaboration]	55.00	55.00	55.00	_
	DRAM	Post- EPICA European collaboration (IPICS/EPICS)	-	-	45.00	45.00
	FOCAS	BCF	-	55.00	55.00	55.00
	NCP	Visiting scientist programme - contribution from BCF	25.00	25.00	25.00	25.00
	NCP	Visiting scientist programme	15.00	15.00	15.00	15.00
	FOCAS	MASIN Calibration	15.00	-	-	-
		TOTAL PSD	155.00	150.00	195.00	140.00
		TOTAL SCIENCE MAJOR PROJECTS	408.95	496.70	365.70	274.95
		TOTAL SCIENCE MAJOR PROJECTS	408.95	496.70	363.70	2/4.95

## **SOUTH GEORGIA**

	06/07 £000's	07/08 £000's	08/09 £000's	09/10 £000's
	Budget	Plan	Plan	Plan
EXPENDITURE				
Employees	355.81	376.73	365.25	383.92
T&S	34.50	21.00	34.50	34.50
Communications	43.00	43.00	43.00	43.00
Repairs, Maintenance & Running Costs	7.00	7.00	7.00	7.00
Ships, Fuel & Lubricants	110.78	94.00	94.00	44.00
Bought in Services	37.20	37.20	34.70	36.70
Science Ship Charter	200.00	3.00	200.00	3.00
Logistics	18.00	18.00	18.00	18.00
Stationery, Publications & Printing	6.30	5.30	2.30	2.30
Equipment & Consumables	46.00	46.00	49.00	49.00
Clothing	11.00	14.00	11.00	11.00
Provisions	25.00	25.00	25.00	25.00
Overheads	219.67	229.29	224.01	232.60
Total	1,114.27	919.52	1,107.76	890.02
INCOME				
GSGSSI	500.00	500.00	500.00	500.00
FCO	500.00	500.00	500.00	500.00
Museum	12.00	12.00	12.00	12.00
Total	1,012.00	1,012.00	1,012.00	1,012.00
	100.07	(22.42)	25.50	(121.22)
NET DEFICIT (SURPLUS)	102.27	(92.48)	95.76	(121.98)
BALANCE B/F	(102.32)	(0.05)	(92.53)	3.23
BALANCE C/F	(0.05)	(92.53)	3.23	(118.75)
DOCTOR EXPENDITURE	132.15	136.16	140.22	144.40
DOCTOR INCOME TOTAL	132.15	136.16	140.22	144.40
GRAND TOTAL EXP	1,246.42	1,055.68	1,247.98	1,034.42
GRAND TOTAL INCOME	1,144.15	1,148.16	1,152.22	1,156.40
POTENTIAL INCOME TO BAS				
Overhead	163.67	173.29	168.01	176.60
Ship Time	50.00	50.00	50.00	50.00
Cargo	6.00	6.00	6.00	6.00
Total	219.67	229.29	224.01	232.60

## **ARCTIC STATION**

	06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
EXPENDITURE				
Employees	46.86	48.74	50.68	52.71
Overhead	10.78	11.21	11.66	12.12
T&S	14.04	14.04	14.04	14.04
Communications	5.66	5.80	5.95	6.10
Electricity	7.91	8.10	8.31	8.51
Building Rents	56.60	58.02	59.47	60.96
Sea Freight	2.00	2.00	2.00	2.00
Equipment & Consumables	5.40	5.40	5.40	5.40
Annual H&S Seminar	1.75	1.75	1.75	1.75
Total	151.00	155.06	159.25	163.59
INCOME				
NERC - confirmed in allocation	125.00	125.00	125.00	125.00
NERC - assumed in allocation	26.00	30.06	34.25	38.59
Total	151.00	155.06	159.25	163.59
NET POSITION		-	-	-

POTENTIAL INCOME TO BAS	10.78	11.21	11.66	12.12
Overhead (1)	10.76	11.21	11.00	12.12

### Notes:

- (1) Overhead rate confirmed with NERC at 23%.
- (2) The station lease ends 31 December 2007 and is expected to be renegotiated.

## **PORT LOCKROY**

	06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
EXPENDITURE				
Employees T & S Admin Services Overheads	4.63 1.40 10.00 1.07		- - -	- - - -
Total	17.10	-	-	-
INCOME				
Sales	17.10	-	-	-
Total	17.10	-	-	-
NET DEFICIT (SURPLUS)		_	_	
BALANCE B/F	-	-	-	
BALANCE C/F	-	-	-	-

POTENTIAL INCOME TO BAS				
Overhead Ship Time	1.07 -	-	-	-
Total	1.07	-	-	-

## Notes:

(1) UK-AHT are taking on the management of Port Lockroy before the 2006/07 season.

Table 14
ANTARCTIC FUNDING INITIATIVE

	06/07 £000's Budget	07/08 £000's Plan	08/09 £000's Plan	09/10 £000's Plan
NERC AFI Funding	1,604	1,640	1,677	1,715
NERC Expenditure				
total Grant Offers Made:				
round 3 To HEI	10	-	-	-
round 4 To BAS	126	41	-	-
round 4 To HEI	225	25	-	-
round 5 To BAS	55	28	-	-
round 5 To HEI	293	276	82	-
round 6 To BAS	47	49	25	-
round 6 To HEI	315	271	74	-
round 7 To BAS (pre-fEC figures)		201	85	85
round 7 To HEI (pre-fEC figures)	22	<b>▼</b> 446	375	323
total Grant Offers Predicted:				
(costed on pre-fEC basis)				
round 8 To BAS			75	111
round 8 To HEI			<b>7</b> 191	282
round 9 To BAS			-	77
round 9 To HEI			-	195
Programme management costs	64	65	67	68
Swindon Office Administration	14	14	15	15
Cost of Studentships	47	37	38	52
CGS costs (recovered by BAS)	12	12	13	13
Total AFI Costs	1,230	1,466	1,039	1,221
Net AFI Position	(374)	(174)	(638)	(494)
		\ /		
Total fEC Grant Offers Made:		<b>_</b>	1	
round 7 To BAS	_	318	134	135
round 7 To HEI	34	<b>♦</b> 678	570	490
Total fEC Grant Offers Predicted:		<b>_</b>	1	
round 8 To BAS			114	169
round 8 To HEI			290	429
				117
round 9 To BAS				

continued overleaf

### ANTARCTIC FUNDING INITIATIVE KEY:

Existing commitments
Forecast, based on analysis of existing awards and costs

Official Start of Award Round - 🗡



The Announcement of Opportunity for AFI Round 8 was deferred by a year.

The call for Round 8 proposals is now expected in May 2006.

Commencement of Round 7 Awards has been delayed by (nominally) a year.

The primary field season for Round 7 projects will therefore be 2007/08, rather than 2006/07.

Full Economic Costing (fEC) was introduced by the Research Councils on 1st Sept 2005. Round 7 awards were re-costed, using the fEC model, in November 2005. This resulted in an increase of costs by 52%, relative to the pre-fEC figures for Round 7.

Pending a decision by NERC about the new level of annual funding for AFI, to compensate for fEC of future bids, financial planning for Table 14 has been conducted on the basis of the earlier costing mode. This approach is also justified on the basis that the additional resource is external to the existing AFI budget.

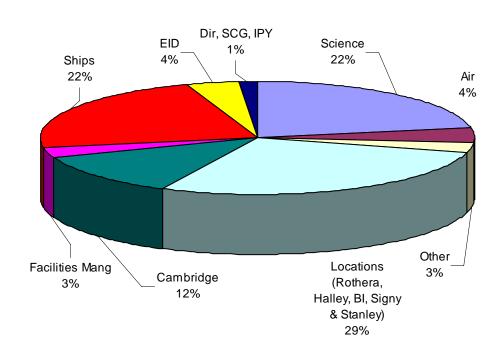
fEC Award predictions for AFI Round 8 have been conducted on the basis of applying a 52% increase to the corresponding pre-fEC profile values.

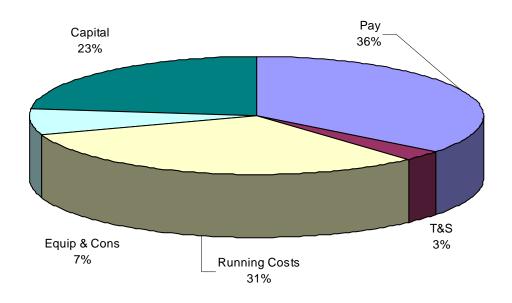
Treasury deflator was applied from 2003/04 to the baseline annual funding figure of £1.5m.

Figures for AFI Rounds 4 and 6 are based on actual award profiles for both BAS and HEI. Figures for AFI Rounds 3 and 5 show correct totals and correct profile for BAS, but HEI profiles were calculated using the average profile for earlier AFI Rounds.

Figures beyond AFI Round 7 apportion the awards according to the historic average.

Table 15 Analysis of Total Exp 2006/07 by purpose & type





### PLANNING ASSUMPTIONS

1. BAS planning supports and is consistent with NERC's mission and strategic aims.

### a. NERC Mission

- To promote and support, by any means, high quality basic, strategic and applied research, survey, long-term environmental monitoring and related postgraduate training in terrestrial, marine and freshwater biology and Earth, atmospheric, hydrological, oceanographic and polar sciences and Earth observations.
- To advance knowledge and technology, and to provide services and trained scientists and engineers, which meet the needs of users and beneficiaries (including the agricultural, construction, fishing, forestry, hydrocarbons, minerals, process, remote sensing, water and other industries), thereby contributing to the economic competitiveness of the United Kingdom, the effectiveness of public services and policy and the quality of life.
- To provide advice on, disseminate knowledge and promote public understanding of the fields aforesaid.

### b. NERC Strategic Aims

- To identify science priorities for understanding the earth system and work with others to deliver world class science.
- To use NERC-funded science to underpin sustainable solutions.
- To provide effective leadership for the environmental sciences.
- To train and develop skilled individuals to meet national needs.
- To ensure that NERC is a flexible, fit-for-purpose organisation, and achieve excellence in service delivery and customer focus.
- 2. Planning is based on the defining characteristics of NERC Research Centres which are to provide, within NERC's mission and science strategy:
  - Excellent scientific research, monitoring and survey not obtainable elsewhere within the UK at competitive quality, timeliness and cost.
  - An integrated, well-managed national capability to provide reliable and independent advice to government and other interested organisations.
  - A focus for international cooperation; for technology expensive projects; and for coordinating distributed major programmes solving complex scientific problems.

The term 'national capability' covers the development and maintenance of trained staff, enabling infrastructure, data gathering, and data curation, management and delivery.

- 3. **Costing principle.** Costings are to be realistic, based on approved requirements and levels of service. New requirements are not to be funded without appropriate prior approval. Pay inflation is handled centrally. Non-pay inflation is ignored after 06/07 except where there is knowledge of specific cost growth; Table 1 includes an unallocated allowance for new requirements and non-pay inflation.
- 4. **Staff Numbers.** The tables below set out the profiles of approved posts (Full Time Equivalents) in BAS over the period of the Plan, excluding casuals. The numbers represent the control totals for planning purposes; Personnel have revalidated all the figures and have a system to track any changes to approved numbers during FY. Costings in the financial

tables reflect actual staff gradings, and they assume that a proportion of pay settlement awards will be met centrally from NERC funds. The financial figures have been abated to take account of average 2% vacancy rates. Casuals to fill gapped posts are to be financed by Divisions and the reason is to be cited if this causes a budget overspend.

## **Core Funding**

Division	2006/07	2007/08	2008/09	2009/10
PSD	72.67	73.08	72.38	70.83
PSD AEP	10.00	12.17	11.08	11.92
BSD	51.17	50.75	50.58	49.75
BSD AEP	7.42	9.58	7.33	9.00
GSD	26.83	26.58	26.00	26.00
EID	25.00	25.00	25.00	25.00
Directorate	5.08	5.00	5.00	5.00
SCG	11.83	11.83	11.83	11.83
Total	210.00	213.99	209.20	209.33
ALD	102.00	103.17	103.17	103.17
ALD AEP	55.00	55.00	55.00	55.00
Ships	97.00	97.00	97.00	96.92
Total for ALD	254.00	255.17	255.17	255.09
BAS Total	464.00	469.16	464.37	464.42

## **External Funding**

BAS Total

Division	2006/07	2007/08	2008/09	2009/10
PSD	8.25	3.67	2.25	0.00
PSD AEP	0.00	0.00	0.00	0.00
BSD	2.83	2.08	1.58	1.08
BSD AEP	4.00	3.00	4.00	3.00
GSD	1.83	1.00	1.00	1.00
EID	1.00	0.50	0.50	0.50
EID AEP	1.25	0.00	0.00	0.00
Directorate	0.00	0.00	0.00	0.00
SCG	1.83	1.83	1.83	1.83
IPY	3.00	3.00	3.00	3.00
Total	23.99	15.08	14.16	10.41
ALD	8.92	8.92	8.92	8.92
ALD AEP	5.33	6.08	6.08	5.33
Total for ALD	14.25	15.00	15.00	14.25

5. **Science.** Costings reflect the approved programmes, long term monitoring and survey and well found laboratory support for delivering Global Science in the Antarctic Context. The eight key programmes are:

30.08

29.16

24.66

- Antarctic Climate and the Earth System (ACES)
- Biodiversity, Function, Limits and Adaptation from Molecules to Ecosystems (BIOFLAME)

38.24

 Climate and Chemistry: forcings, feedbacks and phasings in the Earth System (CACHE)

- Natural Complexity (NCP)
- Discovery 2010: integrating Southern Ocean ecosystems into the Earth System
- Greenhouse to ice-house: Evolution of the Antarctic Cryosphere and Palaeoenvironment (GEACEP)
- Glacial Retreat in Antarctica and Deglaciation of the Earth System (GRADES)
- Sun Earth Connections Programme (SEC)
- 6. **Cambridge Facilities.** Maintenance (and associated expenditure) has been costed on the long term assumption that the BAS Cambridge site will be maintained in accordance with NERC Estate Management standards, the recommendations of periodic condition surveys and in conformity with existing and anticipated safety, fire and security regulations. Most services are provided through a single facilities management contract.
- 7. **Research Stations (Less Halley).** Support for Bird Island, King Edward Point (KEP), Rothera and Signy is to be planned on the assumption of a long term presence. The KEP station is governed by the MOU with the FCO and GSGSSI. Capital expenditure plans are included in Table 3. Expenditure on field stations, such as Sky Blu and Fossil Bluff is planned on a year-to-year basis; these facilities are managed by Rothera and the arrangements are monitored by the Rothera Planning Group.
- 8. **Halley.** Planning assumes that Halley VI will be constructed and Halley V demolished by 2010; the Halley V waste will be removed by the *Ernest Shackleton*. The outline timetable is:

2006/07	Prepare site for Halley VI
2007/08	Start Halley VI construction & opportunistic demolition
2008/09	2 <sup>nd</sup> year of construction and demolition
2009/10	Halley VI starts operations

Maintenance expenditure on Halley V is to be progressively reduced in line with the closure timetable; science activities at Halley V reduce from Feb 08.

- 9. **South Georgia.** Fieldwork on South Georgia is outside the normal area of BAS operations, except for Bird Island. The KEP research station is operated to meet customer requirements and is not available for BAS core programmes or AFI projects.
- 10. **Ships.** Expenditure plans for the Survey's ships are based on maintenance in class with the respective Classifications Societies (Lloyds Register and DNV). Maintenance and refit assumes an annual average of 330 operational days for each ship and no requirement for mid-life updates.
  - RRS James Clark Ross an operational life until 2020, with about a 160 days/year in the Antarctic. NERC funds and uses the ship for 60 days/year.
  - RRS Ernest Shackleton hire from the owners, Rieber's, until at least 2014 with a
    possible extension to 2019, with about 130 days/year in the Antarctic. BAS has an
    option in 2010 to consider the future of the North Sea charter arrangement, which
    provides an annual income to the Survey.
- 11. **Aircraft.** Plans for the maintenance of the Survey's aircraft are in accordance with the schedules laid down by Director Civil Aviation Falkland Islands and to the standards required for a Private Operator's Category Certificate of Airworthiness. The operational life of the aircraft is assumed to be:
  - Twin Otters until 2015, with an overall total of 1660 hrs/yr for field operations per season.

- DHC-7 until 2015, at an average of 450 hrs/yr for field operations.
- 12. **KEP.** Funding of KEP is through an MOU with the FCO and GSGSSI and is ring-fenced. Core science money is not to be used to fund the project. The BAS presence is assumed to be long term.
- 13. **Vehicles.** Expenditure plans are based on maintaining a vehicle fleet to meet the needs of the approved field programme and specific base requirements.
- 14. **Health and Safety.** General infrastructure and project expenditure plans take into account the health and safety of the Survey's staff and known and anticipated UK and EU legislation, qualified only by the practicalities of implementation in Antarctica.
- 15. **Environment and Waste Management.** Capital and recurrent expenditure plans are based on the UK's obligations under the 1991 Protocol on Environmental Protection to the Antarctic Treaty and 1994 Antarctic Act (conditions attaching to permits issued by FCO).
- 16. **Information and Technology Support.** Plans are based on the requirements of approved projects, scientific cruises, the maintenance and support of the Antarctic and ship-based networks and Cambridge computing.
- 17. **ITSS Support.** Expenditure plans reflect the pricing structure set out in Service Level Agreement with ITSS.
- 18. **HMS ENDURANCE.** Plans take account of projects agreed annually with the Royal Navy over the ship's Five Year Programme and formalised at the annual MoD Ice Patrol Ship meeting.
- 19. **Port Lockroy.** The operation of the Antarctic Heritage site at Port Lockroy is due to be transferred to the UK Antarctic Heritage Trust during 06/07.
- 20. **Artists & Writers Programme.** The BAS Artists & Writers Programme will operate until at least 2010.

#### PRICING GUIDANCE - 2006/07

## 1 General Principles

- 1.1 This table provides the costings to apply when preparing bids for any externally funded schemes. It reflects the new Government approach to Full Economic Costing (fEC) for all activities to ensure sustainability of research. It also includes the overhead rates to apply to European Commission bids.
- 1.2 Please discuss your proposals with BAS Head of Finance and the Programme Office when preparing your bid.

# 2. Full Economic Costing

- 2.1 Successful bids to Research Councils will currently be funded at 80% of total fEC, i.e. 80% of both direct costs and overheads. This system replaces Thematic and non-Thematic Grant applications. By 2010, the intention is that fEC funding will have increased to 100%.
- 2.2 fEC overhead rates are broken down into two main elements: Indirect costs and Estates costs. Indirect costs are calculated to recover general overhead costs, whilst Estates costs are intended to recover costs specific to running and maintaining the BAS UK Estate.
- 2.3 For fEC, the rates are applied in proportion to the number of staff charged to the scheme, regardless of grade. Also note that for schemes where staff costs amount to less than 20% of total project costs, then the guidance is to apply an overhead charge of 10% of all non-pay costs instead.
- 2.4 Please contact BAS Finance for figures to apply for usage of major BAS UK facilities, e.g. Angel Lab.

## 3. European Commission Costings

3.1 For European Commission bids the basis on which overheads are applied has not changed, although the calculation has been reviewed.

# 4. Costings for Commercial work

4.1 Proposals for commercially funded projects should normally be costed at fEC rates. However, where tangible benefits also accrue to BAS Core Science the minimum charge must be at least direct costs plus 25%.

# A. STAFF COSTS - DAILY 2006/07 - NON fEC

Band		Grade		Salary £	NI £	Super £	Salary Related i.e. Salary & NI & Super £	Proposed Rate for European Grants: Salary Related + 111% £
3	Grade 6			239	19	51	309	653
4	Grade 7			198	16	42	256	541
5	SSO	SEO	SPTO	155	12	33	201	424
6	HSO	HEO	НРТО	122	10	26	158	334
7	so	EO	PTO	98	8	21	127	267
8	ASO	AO		72	6	15	93	196
9		AA		73	6	16	94	199

# STAFF COSTS - ANNUAL 2006/07 - NON fEC

Band		Grade		Salary £	NI £	Super £	Salary Related i.e. Salary & NI & Super £	Proposed Rate for European Grants: Salary Related + 111% £
3	Grade 6			52,655	4,212	11,216	68,083	143,655
4	Grade 7			43,615	3,489	9,290	56,394	118,991
5	SSO	SEO	SPTO	34,157	2,733	7,275	44,165	93,188
6	HSO	HEO	HPTO	26,944	2,156	5,739	34,839	73,511
7	so	EO	PTO	21,528	1,722	4,586	27,836	58,735
8	ASO	AO		15,771	1,262	3,359	20,392	43,027
9		AA		16,067	1,285	3,422	20,774	43,833

N.B. fEC rates need to be added to these figures, detailed overleaf.

continued overleaf

#### Staff Costs Notes:

Unless special arrangements apply overheads are to be charged in accordance with the appropriate column in the above table. All overheads are to be paid into BAS central funds.

For NERC and all other public sector organisations use the fEC rate detailed below.

For European Grants use column 7 above.

For commercial rates please see the previous page.

Existing arrangements apply for Port Lockroy, Arctic and South Georgia.

#### Points which answer FAQs:

The above are average figures for 2006/07. NI is 8% and Superannuation 21.3%. Working days 220 per year

Increase salary related costs and fEC costs by 2.5% for years following 2006/07. Remember to include allowances if necessary.

Personnel will advise on actual scale points, progression and redundancy costs.

The above figures are non fEC, to achieve fEC:

You can add the following amounts as a separate item.

Both are per full time person per full year, pro rata if necesary.

Estates 12,700 Indirect costs 36,330 49,030

It is strongly recommended that you speak to Finance and the Programme Office for advice.

N.B. Proposals are currently funded at 80% of the fEC figure.

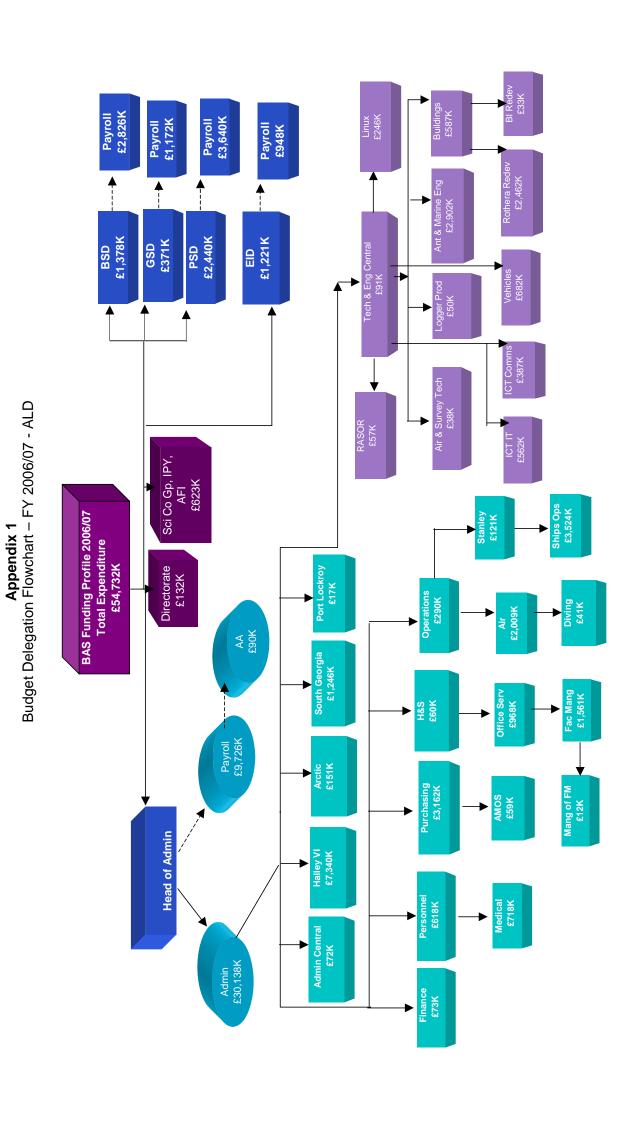
# **B. FIELD AND LOGISTICS COSTS**

	Standard BAS Rates		
	£	£	
TRAINING/PREPARATION (COURSE)			
Specialist Safety training (including SCUBA)	500		
Personal Survival training (not incl travel expenses)	100		
Medical exams	120		
SHIPCOSTS (DAILY)			
Scientific use of ship			
Charter JCR	16,000		
Charter ES (excl fuel/other variable costs)	8,050		
Berth on ship			
JCR	78		
ES	54		
Messing on Ship for JCR & ES	11		
BASECOSTS (DAILY)			
Per person - messing			
Rothera	22		
Halley	44		
Bird Island	54		
Signy	88		
Per person - scientific			
Rothera	66		
Halley	88		
Bird Island	121		
Signy	242		
Cost of camping in field	242		
Cost of small boat support	176		
AIRCRAFT			
return flight (actual commercial two way)	2,800		
Meet & greet at each end of trip to Antarctica (two)	120		
Accommodation per head per night inclusive of meals (FI rate)	60		
Cost of a twin otter hour	967		
Cost of a Dash 7 hour	3,142		
per passenger: D7 per hour		220	
TO per hour		164	
CLOTHING	summer	winter	
short visit	559	n/a	
offshore JCR	608	n/a	
offshore ES	763	n/a	
Halley station	1,002	1,495	
Halley field	1,390	1,548	
Rothera station	827	1,613	
Rothera field	1,030	1,623	
Bird Island/Signy/South Georgia	901	1,115	
NB clothing remains property of BAS			

# **BAS CHANGE AND PERFORMANCE OBJECTIVES**

			Target Date				
Serial	Change and Performance Objectives	Lead	06/07	07/08	08/09		
1. Delivering Science and its Support							
1.1	Deliver GSAC outputs to PIs	Sci HoDs					
1.2	Delivery of EID support to agreed plan	EID (jrs)	Performance measured against annual plans				
1.3	Delivery of LTMS to agreed plans	Sci HoDs & Hd of EID					
1.4	Delivery of IMP plans	IMPs					
1.5	Delivery of CCAMLR projects	BSD (pkr)					
1.6	Delivery of AFI support	AFI Co-ord (mm)					
1.7	Delivery of externally funded research projects	Sci HoDs					
1.8	Implementation of approved capital projects	All HoDs					
1.9	Implementation of approved operational plans	ALD (jhal)					
1.10	Meet research studentship programme objectives	GSD (jac)					
1.11	Maintain expenditure within budget guidelines	All HoDs					
1.12	Production of GSAC outputs	Pls					
1.13	Complete ASGC reports and outputs	EID (jrs)	Dec06				
1.14	Deliver remainder of Q3 data and meta data to AEDC	Science HoDs	May06				
1.15	Increase the success rate of BAS-led grant proposals	HoSP (Phil Leat)		Dec07			
1.16	Hold a scientific meeting on Complexity	HoSP (mpf)		Dec07			
1.17	Deliver ATCM Support – Edinburgh	EID (Imc)	Jun 06				
2. Strate	egy & Planning						
2.1	Sustainable energy strategy (initial implementation)	ALD (dmb) EID (jrs)	Mar07				
2.2	Complete Rothera Redevelopment (1st phase)	Project (jac)		May07			
2.3	Achieve NERC Commercialisation Targets	ALD (jp)	Mar07				
2.4	Sign Halley VI contracts and begin procurement	Directorate (rnc)	Sep06				
2.5	Make further progress with Vision Implementation	Directorate (cgr/rnc)	Dec06				
2.6	Decide BP 2007 New Requirements to be funded	ALD (jp)	Dec06				
2.7	Review airborne science arrangements	GSD (jac)		Jul07			
2.8	Review LTMS Strategy Group arrangements	Directorate (rnc)	Feb07				
2.9	Take forward strategy for hosting meetings/events	Directorate / SCG (cgr/asr)	Aug06				

3. Prod	ess Improvements				
3.1	Revamp BAS Web Site	EID (jrs)	Dec06		
3.2	Cambridge-led major incident exercise	ALD (jh)	Sep06		
3.3	Review BAS Safety Management System	Directorate (rnc)	Jun06		
3.4	Review BI accommodation arrangements	ALD (jp)	Jun06		
3.5	PIR – PASIN	ALD (dmb)	May06		
3.6	PIR – MASIN	PSD (mp)	TBC		
3.7	Review 'Hail & Farewell' Process	ALD (fb)	May06		
3.8	Review use of tour ships to KEP	ALD (jp)	May06		
3.9	Complete Dutch MOU	ALD/BSD (jp/pkr)	Jul06		
3.10	Airborne Science Review (Planning & Operation)	GSD (jac)		Jul07	
3.11	Achieve Environmental accreditation (ISO 14001)	EID (jrs)		Apr07	
3.12	Achieve Safety accreditation (ISO 18001)	ALD (nw)		Apr07	
3.13	Establish data management responsibilities with AFI researchers	EID (ebw)	Mar07		
3.14	Achieve liP reaccredidation	ALD (fb)			May08
3.15	Handover Port Lockroy to UKAHT	ALD (jp)	Oct06		
3.16	Codify the AFI arrangements with NERC	HoSP	Jul 06		
4. Man	datory, Regulatory and Proprietary Requirements				
4.1	Renewal of Ships refit contract	ALD (dmb)		May07	
4.2	Maintain ISM and ISPS accreditation (annual audit)	ALD (cjh)	Mar05		
4.3	Renewal of Morrison Partnering Agreement	ALD (jp)			May08
4.4	Annual Permitting Return	ALD (medi)	Aug06	Aug07	Aug08
4.5	Rothera Redevelopment Progress Reports to FCO	EID (jrs)	Aug06	Aug07	Aug08
4.6	Report non-indigenous control procedures to FCO	EID (jrs)	Aug06		
4.7	Update management plans (Rothera & Moe Island) for FCO	EID (jrs)		Aug07	
4.8	Report to FCO on human waste treatment at field sites	EID (jrs)		Aug07	
4.9	Report to FCO on sustainable energy strategy progress	EID (jrs)		Aug 07	



Payroll £1,172K PEP-G £31K Appendix 2 Budget Delegation Flowchart – FY 2006/07 - GSD LTMS-G £15K WFL-G £84K GSD £1,543K ISODYN £119K QWAD £88K BIOPEARL-G £29K STUA £5K

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Payroll £2,826K PEP-B £56K OEM £35K WFL-B £291K Appendix 3

Budget Delegation Flowchart – FY 2006/07 - BSD FOODWEBS £172K BSD £4,204K LTMS-B £204K FLEXICON £179K LPIMP £15K CEMI £91K BIOREACH £227K ACAIMP £23K EXT £58K BIOPEARL-B £27K

WFL-P £383K IMAGE £30K Payroll £3,640K WARP £90K HOLISTIC £187K TIGRIS £65K FOCAS £371K PSD £6,080K PEP-P £24K DRAM £147K NCP £98K LTMS-P £283K CEFAC £205K RHIMP £15K ACCENT £39K EXT £488K EWIMP £15K

Appendix 4

Budget Delegation Flowchart – FY 2006/07 - PSD

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Artists & Writers £10K IRM £27K Env. Manage.t £106K Payroll £948K APC £19K **Appendix 5**Budget Delegation Flowchart – FY 2006/07 - EID Photograpic £32K Library £113K Clean Up £572K EID £2,196K Archives £36K HOD £19K MAGIC £32K Press PR Educ £130K GSAC £27K Data & Web £125K

# Appendix 6 BUSINESS PLAN DISTRIBUTION LIST

# BAS, Cambridge

Director

**Deputy Director** 

**Directorate Assistant** 

Head of ALD

Head of BSD (24)

Head of EID (10)

Head of GSD (11)

Head of PSD (24)

Head of Science Programmes

Head of Science Coordination Group (3)

Individual Merit Promotees (4)

**GSAC Principal Investigators (8)** 

Head of Finance (14)

Head of Operations (12)

Head of Personnel (4)

Head of Procurement & Shipping (8)

Head of Technical Services (6)

Safety Advisor & Head of Cambridge Facilities (3)

Head of AME (5)

Head of AST (2)

Head of Building Services (3)

Head of ICT (3)

Halley VI Project Manager (1)

IPMS/Whitley Chair

Library

Archives

#### **BUSINESS PLAN DISTRIBUTION LIST cont**

## External to Cambridge

Professor A Thorpe Chief Executive, NERC

Dr S Wilson Director Science & Innovation, NERC Mr N F D Bloomer Finance & Info Systems Director, NERC

Mrs J Timberlake Director People Skills and Communication, NERC

Mrs M Hayward Chief Accountant, NERC

Mr S Caswell Management accountant, NERC
Miss L Porter Team Leader, Evaluation, NERC
Mr J Hansford Director of Swindon Office, NERC

Mr J Bates Head of Personnel, NERC Mr A Lewis Business Manager, NERC

Ms M Wickenden Team Leader, Operational Planning, NERC Ms H Jeffery Business Manager, Planning & Evaluation

Mr R Harris Director of RCIAS, Swindon

Mr N Yeates RCIAS, Swindon

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Mr I Grant BASMU, Plymouth (2)
Master RRS James Clark Ross (3)
Master RRS Ernest Shackleton (3)
Mrs P Sackett Stanley Office, Falkland Islands

Halley Base Antarctica (2)
Rothera Base Antarctica (3)
Bird Island Base Antarctica (1)
Signy Base Antarctica (1)
King Edward Point Base Antarctica (2)

Dr B Smith BAS Board Independent Member

Mr J Hammerton Morrison

BAS Internal web pages http://basweb.nerc-bas.ac.uk/busplan/

# Feedback and further information

We welcome your feedback and comments on this document. These should be addressed to:

Head of Administration and Logistics Division British Antarctic Survey High Cross, Madingley Road Cambridge, CB3 0ET, UK

Email: hand@bas.ac.uk

For further information about BAS, please visit our website: www.antarctica.ac.uk



www.antarctica.ac.uk

