

Invitation to Quote

Invitation to Quote (ITQ) on behalf of **UK Research & Innovation - NERC**

Subject: **Technical Advisory Services: BAS Aircraft Capability 2020**

Sourcing Reference Number: **CS18032**



UK Shared Business Services Ltd (UK SBS)
www.uksbs.co.uk

Registered in England and Wales as a limited company. Company Number 6330639.
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Section 1 – About UK Shared Business Services

Putting the business into shared services

UK Shared Business Services Ltd (UK SBS) brings a commercial attitude to the public sector; helping our Contracting Authorities improve efficiency, generate savings and modernise.

It is our vision to become the leading service provider for the Contracting Authorities of shared business services in the UK public sector, continuously reducing cost and improving quality of business services for Government and the public sector.

Our broad range of expert services is shared by our Contracting Authorities. This allows Contracting Authorities the freedom to focus resources on core activities; innovating and transforming their own organisations.

Core services include Procurement, Finance, Grants Admissions, Human Resources, Payroll, ISS, and Property Asset Management all underpinned by our Service Delivery and Contact Centre teams.

UK SBS is a people rather than task focused business. It's what makes us different to the traditional transactional shared services centre. What is more, being a not-for-profit organisation owned by the Department for Business, Energy & Industrial Strategy (BEIS), UK SBS' goals are aligned with the public sector and delivering best value for the UK taxpayer.

UK Shared Business Services Ltd changed its name from RCUK Shared Services Centre Ltd in March 2013.

Growing from a foundation of supporting the Research Councils, 2012/13 saw Business, Energy and Industrial Strategy (BEIS) transition their procurement to UK SBS and Crown Commercial Services (CCS – previously Government Procurement Service) agree a Memorandum of Understanding with UK SBS to deliver two major procurement categories (construction and research) across Government.

UK SBS currently manages £700m expenditure for its Contracting Authorities. Our Contracting Authorities who have access to our services and Contracts are detailed [here](#).

Section 2 – About the Contracting Authority

UK Research and Innovation

Operating across the whole of the UK and with a combined budget of more than £6 billion, UK Research and Innovation represents the largest reform of the research and innovation funding landscape in the last 50 years.

As an independent non-departmental public body UK Research and Innovation brings together the seven Research Councils (AHRC, BBSRC, EPSRC, ESRC, MRC, NERC, STFC) plus Innovate UK and a new organisation, Research England.

UK Research and Innovation ensures the UK maintains its world-leading position in research and innovation. This is done by creating the best environment for research and innovation to flourish.

For more information, please visit: www.ukri.org

Natural Environment Research Council (NERC)

NERC is the driving force of investment in environmental science. Their leading research, skills and infrastructure help solve major issues and bring benefits to the UK, such as affordable clean energy, air pollution, and resilience of our infrastructure.

<https://nerc.ukri.org/>

Privacy Notice

This notice sets out how the Contracting Authority / UK SBS will use your personal data, and your rights. It is made under Articles 13 and/or 14 of the General Data Protection Regulation (GDPR).

YOUR DATA

The Contracting Authority / UK SBS will process the following personal data:

Names and contact details of employees involved in preparing and submitting the bid;
Names and contact details of employees proposed to be involved in delivery of the contract;

Names, contact details, age, qualifications and experience of employees who's CVs are submitted as part of the bid.

Purpose

The Contracting Authority are processing your personal data for the purposes of the tender exercise, or in the event of legal challenge to such tender exercise.

Legal basis of processing

The legal basis for processing your personal data is processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the data controller, such as the exercise of a function of the Crown, a Minister of the Crown, or a government department; the exercise of a function conferred on a person by an enactment; the exercise of a function of either House of Parliament; or the administration of justice.

Recipients

Your personal data will be shared by us with other Government Departments or public authorities where necessary as part of the tender exercise. The Contracting Authority / UK SBS may share your data if required to do so by law, for example by court order or to prevent fraud or other crime.

Retention

All submissions in connection with this tender exercise will be retained for a period of 7 years from the date of contract expiry, unless the contract is entered into as a deed in which case it will be kept for a period of 12 years from the date of contract expiry.

YOUR RIGHTS

You have the right to request information about how your personal data are processed, and to request a copy of that personal data.

You have the right to request that any inaccuracies in your personal data are rectified without delay.

You have the right to request that any incomplete personal data are completed, including by means of a supplementary statement.

You have the right to request that your personal data are erased if there is no longer a justification for them to be processed.

You have the right in certain circumstances (for example, where accuracy is contested) to request that the processing of your personal data is restricted.

You have the right to object to the processing of your personal data where it is processed for direct marketing purposes.

You have the right to object to the processing of your personal data.

INTERNATIONAL TRANSFERS

Your personal data will not be processed outside the European Union

COMPLAINTS

If you consider that your personal data has been misused or mishandled, you may make a complaint to the Information Commissioner, who is an independent regulator. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

0303 123 1113

casework@ico.org.uk

Any complaint to the Information Commissioner is without prejudice to your right to seek redress through the courts.

CONTACT DETAILS

The data controller for your personal data is:

United Kingdom Research and Innovation(UKRI)

You can contact the Data Protection Officer at:

UKRI Head of Information Governance, Polaris House, North Star Avenue. Swindon,
Wiltshire,SN2 1FF, Email David.Hyett@ukri.org

Section 3 - Working with the Contracting Authority.

In this section you will find details of your Procurement contact point and the timescales relating to this opportunity.

Section 3 – Contact details		
3.1	Contracting Authority Name and address	UK Research and Innovation – NERC, Polaris House, North Star Avenue, Swindon, Wiltshire, SN2 1EU
3.2	Buyer name	Ben Osborne
3.3	Buyer contact details	Coreservicesprocurement@uksbs.co.uk
3.4	Estimated value of the Opportunity	£150,000.00 excluding VAT
3.5	Process for the submission of clarifications and Bids	All correspondence shall be submitted within the Emptoris e-sourcing tool. Guidance Notes to support the use of Emptoris is available here. Please note submission of a Bid to any email address including the Buyer <u>will</u> result in the Bid <u>not</u> being considered.

Section 3 - Timescales		
3.6	Date of Issue of Contract Advert and location of original Advert	12/11/2018 Contracts Finder
3.7	Latest date/time ITQ clarification questions shall be received through Emptoris messaging system	16/11/2018 14:00pm
3.8	Latest date/time ITQ clarification answers should be sent to all Bidders by the Buyer through Emptoris	19/11/2018 14:00pm
3.9	Latest date/time ITQ Bid shall be submitted through Emptoris	26/11/2018 14:00pm
3.10	Date/time Bidders should be available if face to face/telephone clarifications are required	29/11/2018
3.11	Anticipated notification date of successful and unsuccessful Bids	05/12/2018
3.12	Anticipated Award date	05/12/2018
3.13	Anticipated Contract Start date	07/12/2018
3.14	Anticipated Contract End date	31/05/2019
3.15	Bid Validity Period	60 Days

Section 4 – Specification

Overview of The British Antarctic Survey

The British Antarctic Survey (BAS), an institute of the Natural Environment Research Council (NERC) – part of UK Research & Innovation (UKRI) – delivers and enables world-leading interdisciplinary research in the Polar Regions. Through its extensive logistic capability and experience, BAS facilitates access for the international science community to the UK polar research operation. Numerous national and international collaborations, combined with an excellent infrastructure, help sustain a world-leading position for the UK in Antarctic affairs.

Background

BAS is currently carrying out a major programme of Antarctic infrastructure and logistics modernisation. This is placing increased demand on the current intercontinental supply chain. To build resilience and redundancy into the supply chain BAS is seeking to augment its existing fleet with an additional passenger aircraft. This aircraft will work alongside the de Havilland Canada DHC-7 Series 110 (Dash 7) aircraft that currently provides BAS its intercontinental airbridge operation. The aircraft will be capable of transporting passengers and medical patients. It is expected to begin operating in the 2020/21 austral summer and is expected to be operated for at least five years until both it and the Dash 7 are replaced.

User Requirements and tender documents are currently being refined. It is anticipated that an OJEU will be published in the week commencing 26 November 2018.

Summary of the Proposed Work

The purpose of this proposed contract is to provide specialist aviation technical advice and support to the Air Capability 2020 project during the aircraft procurement phase of the project. It comprises 4 separate work packages:

Serial	Work Package	Required Output	Timeframe	Remarks
1	Detailed analysis of primary hazards in the BAS airbridge operation against FAR 25 certification standards to determine areas where FAR 25 certification of an airbridge aircraft may not adequately address/support the BAS mission	Evaluation Report	To be complete end December	A description of the proposed BAS airbridge mission and the primary hazards identified will be provided 01 Dec 2018
2	Support to the evaluation of aircraft performance data in tender documents against user requirements during the evaluation of tender responses to support the	Evaluation Report	To be complete within 2 weeks of receipt of	Aircraft tender documents to be available from 01 Dec. Tender responses will not be available until 07 Jan 2019.

	identification of a preferred aircraft to be identified.		tender documents.	
3	Preparation for and physical inspection of the preferred aircraft and all supporting airworthiness paperwork to ensure it meets the necessary regulatory and user requirements.	Evaluation Report	To be complete within 30 days of identification of the aircraft.	Location of inspection will be determined during initial tender evaluation. Inspection anticipated to commence not before 21 Jan 2019 but not later than 04 Feb 2019.
4	Development of an aircraft Safety Case	Safety Case	To be complete by 31 May 19.	Dependant on decision to purchase an aircraft.

Work package 3 will only be commissioned if a suitable aircraft is identified during tender evaluation. Due to the short notice to commence this activity, a minimum cost will be paid to secure the services/resources to carry out this work.

Work package 4 will only be commissioned if a suitable aircraft is identified during tender evaluation.

The winning supplier may be required to sign a Non Disclosure Agreement by the eventual chosen aircraft supplier.

Location

Work package 3 which will need to be carried out at a location to be agreed with the chosen aircraft supplier. The remainder of the work can be undertaken at any location. It is anticipated however that there will be some meetings at BAS HQ in Cambridge that will need to be attended, particularly during work package 2.

Payment

Payment will be made on successful completion of each work package

Terms and Conditions

Bidders are to note that any requested modifications to the Contracting Authority Terms and Conditions on the grounds of statutory and legal matters only, shall be raised as a formal clarification during the permitted clarification period.

Section 5 – Evaluation model

The evaluation model below shall be used for this ITQ, which will be determined to two decimal places.

Where a question is 'for information only' it will not be scored.

The evaluation team may comprise staff from UK SBS and the Contracting Authority and any specific external stakeholders the Contracting Authority deems required. After evaluation the scores will be finalised by performing a calculation to identify (at question level) the mean average of all evaluators (Example – a question is scored by three evaluators and judged as scoring 5, 5 and 6. These scores will be added together and divided by the number of evaluators to produce the final score of 5.33 ($5+5+6 = 16 \div 3 = 5.33$))

Pass / fail criteria		
Questionnaire	Q No.	Question subject
Commercial	SEL1.2	Employment breaches/ Equality
Commercial	FOI1.1	Freedom of Information Exemptions
Commercial	AW1.1	Form of Bid
Commercial	AW1.3	Certificate of Bona Fide Bid
Commercial	AW3.1	Validation check
Commercial	SEL3.11	Compliance to Section 54 of the Modern Slavery Act
Commercial	SEL3.12	Cyber Essentials
Commercial	SEL3.13	General Data Protection Regulations (GDPR)
Commercial	AW4.1	Contract Terms Part 1
Commercial	AW4.2	Contract Terms Part 2
Price	AW5.5	E Invoicing
Price	AW5.6	Implementation of E-Invoicing
Quality	AW6.1	Compliance to the Specification
Quality	AW6.2	Variable Bids
-	-	Invitation to Quote – received on time within e-sourcing tool

Scoring criteria			
Evaluation Justification Statement			
In consideration of this particular requirement the Contracting Authority has decided to evaluate Potential Providers by adopting the weightings/scoring mechanism detailed within this ITQ. The Contracting Authority considers these weightings to be in line with existing best practice for a requirement of this type.			
Questionnaire	Q No.	Question subject	Maximum Marks
Price	AW5.2	Price	20%
Quality	PROJ1.1	Approach/methodology used to carry out the work	30%

Quality	PROJ1.2	Team Composition, knowledge and expertise	40%
Quality	PROJ1.3	Project Plan & Risk Management	10%

Evaluation of criteria

Non-Price elements

Each question will be judged on a score from 0 to 100, which shall be subjected to a multiplier to reflect the percentage of the evaluation criteria allocated to that question.

Where an evaluation criterion is worth 20% then the 0-100 score achieved will be multiplied by 20%.

Example if a Bidder scores 60 from the available 100 points this will equate to 12% by using the following calculation:

$$\text{Score} = \{\text{weighting percentage}\} \times \{\text{bidder's score}\} = 20\% \times 60 = 12$$

The same logic will be applied to groups of questions which equate to a single evaluation criterion.

The 0-100 score shall be based on (unless otherwise stated within the question):

0	The Question is not answered, or the response is completely unacceptable.
10	Extremely poor response – they have completely missed the point of the question.
20	Very poor response and not wholly acceptable. Requires major revision to the response to make it acceptable. Only partially answers the requirement, with major deficiencies and little relevant detail proposed.
40	Poor response only partially satisfying the selection question requirements with deficiencies apparent. Some useful evidence provided but response falls well short of expectations. Low probability of being a capable supplier.
60	Response is acceptable but remains basic and could have been expanded upon. Response is sufficient but does not inspire.
80	Good response which describes their capabilities in detail which provides high levels of assurance consistent with a quality provider. The response includes a full description of techniques and measurements currently employed.
100	Response is exceptional and clearly demonstrates they are capable of meeting the requirement. No significant weaknesses noted. The response is compelling in its description of techniques and measurements currently employed, providing full assurance consistent with a quality provider.

All questions will be scored based on the above mechanism. Please be aware that the final score returned may be different as there may be multiple evaluators and their individual scores will be averaged (mean) to determine your final score.

Example

Evaluator 1 scored your bid as 60

Evaluator 2 scored your bid as 60

Evaluator 3 scored your bid as 40

Evaluator 4 scored your bid as 40

Your final score will $(60+60+40+40) \div 4 = 50$

Price elements will be judged on the following criteria.

The lowest price for a response which meets the pass criteria shall score 100.

All other bids shall be scored on a pro rata basis in relation to the lowest price. The score is then subject to a multiplier to reflect the percentage value of the price criterion.

For example - Bid 1 £100,000 scores 100.

Bid 2 £120,000 differential of £20,000 or 20% remove 20% from price scores 80

Bid 3 £150,000 differential £50,000 remove 50% from price scores 50.

Bid 4 £175,000 differential £75,000 remove 75% from price scores 25.

Bid 5 £200,000 differential £100,000 remove 100% from price scores 0.

Bid 6 £300,000 differential £200,000 remove 100% from price scores 0.

Where the scoring criterion is worth 50% then the 0-100 score achieved will be multiplied by 50.

In the example if a supplier scores 80 from the available 100 points this will equate to 40% by using the following calculation: $\text{Score/Total Points multiplied by 50}$ ($80/100 \times 50 = 40$)

The lowest score possible is 0 even if the price submitted is more than 100% greater than the lowest price.

Section 6 – Evaluation questionnaire

Bidders should note that the evaluation questionnaire is located within the **e-sourcing questionnaire**.

Guidance on completion of the questionnaire is available at
<http://www.uksbs.co.uk/services/procure/Pages/supplier.aspx>

PLEASE NOTE THE QUESTIONS ARE NOT NUMBERED SEQUENTIALLY

Section 7 – General Information

What makes a good bid – some simple do's 😊

DO:

- 7.1 Do comply with Procurement document instructions. Failure to do so may lead to disqualification.
- 7.2 Do provide the Bid on time, and in the required format. Remember that the date/time given for a response is the last date that it can be accepted; we are legally bound to disqualify late submissions. Responses received after the date indicated in the ITQ shall not be considered by the Contracting Authority, unless the Bidder can justify that the reason for the delay, is solely attributable to the Contracting Authority
- 7.3 Do ensure you have read all the training materials to utilise e-sourcing tool prior to responding to this Bid. If you send your Bid by email or post it will be rejected.
- 7.4 Do use Microsoft Word, PowerPoint Excel 97-03 or compatible formats, or PDF unless agreed in writing by the Buyer. If you use another file format without our written permission, we may reject your Bid.
- 7.5 Do ensure you utilise the Emptoris messaging system to raise any clarifications to our ITQ. You should note that we will release the answer to the question to all Bidders and where we suspect the question contains confidential information we may modify the content of the question to protect the anonymity of the Bidder or their proposed solution
- 7.6 Do answer the question, it is not enough simply to cross-reference to a 'policy', web page or another part of your Bid, the evaluation team have limited time to assess bids and if they can't find the answer, they can't score it.
- 7.7 Do consider who the Contracting Authority is and what they want – a generic answer does not necessarily meet every Contracting Authority's needs.
- 7.8 Do reference your documents correctly, specifically where supporting documentation is requested e.g. referencing the question/s they apply to.
- 7.9 Do provide clear, concise and ideally generic contact details; telephone numbers, e-mails and fax details.
- 7.10 Do complete all questions in the questionnaire or we may reject your Bid.
- 7.11 Do ensure that the Response and any documents accompanying it are in the English Language, the Contracting Authority reserve the right to disqualify any full or part responses that are not in English.
- 7.12 Do check and recheck your Bid before dispatch.

What makes a good bid – some simple do not's

DO NOT

- 7.13 Do not cut and paste from a previous document and forget to change the previous details such as the previous buyer's name.
- 7.14 Do not attach 'glossy' brochures that have not been requested, they will not be read unless we have asked for them. Only send what has been requested and only send supplementary information if we have offered the opportunity so to do.
- 7.15 Do not share the Procurement documents, they are confidential and should not be shared with anyone without the Buyers written permission.
- 7.16 Do not seek to influence the procurement process by requesting meetings or contacting UK SBS or the Contracting Authority to discuss your Bid. If your Bid requires clarification the Buyer will contact you. All information secured outside of formal Buyer communications shall have no Legal standing or worth and should not be relied upon.
- 7.17 Do not contact any UK SBS staff or the Contracting Authority staff without the Buyers written permission or we may reject your Bid.
- 7.18 Do not collude to fix or adjust the price or withdraw your Bid with another Party as we will reject your Bid.
- 7.19 Do not offer UK SBS or the Contracting Authority staff any inducement or we will reject your Bid.
- 7.20 Do not seek changes to the Bid after responses have been submitted and the deadline for Bids to be submitted has passed.
- 7.21 Do not cross reference answers to external websites or other parts of your Bid, the cross references and website links will not be considered.
- 7.22 Do not exceed word counts, the additional words will not be considered.
- 7.23 Do not make your Bid conditional on acceptance of your own Terms of Contract, as your Bid will be rejected.
- 7.24 Do not unless explicitly requested by the Contracting Authority either in the procurement documents or via a formal clarification from the Contracting Authority send your response by any way other than via e-sourcing tool. Responses received by any other method than requested will not be considered for the opportunity.

Some additional guidance notes

- 7.25 All enquiries with respect to access to the e-sourcing tool and problems with functionality within the tool must be submitted to Crown Commercial Service (previously Government Procurement Service), Telephone 0345 010 3503.
- 7.26 Bidders will be specifically advised where attachments are permissible to support a question response within the e-sourcing tool. Where they are not permissible any attachments submitted will not be considered as part of the evaluation process.
- 7.27 Question numbering is not sequential and all questions which require submission are included in the Section 6 Evaluation Questionnaire.
- 7.28 Any Contract offered may not guarantee any volume of work or any exclusivity of supply.
- 7.29 We do not guarantee to award any Contract as a result of this procurement
- 7.30 All documents issued or received in relation to this procurement shall be the property of the Contracting Authority. / UKSBS.
- 7.31 We can amend any part of the procurement documents at any time prior to the latest date / time Bids shall be submitted through Emptoris.
- 7.32 If you are a Consortium you must provide details of the Consortiums structure.
- 7.33 Bidders will be expected to comply with the Freedom of Information Act 2000 or your Bid will be rejected.
- 7.34 Bidders should note the Government's transparency agenda requires your Bid and any Contract entered into to be published on a designated, publicly searchable web site. By submitting a response to this ITQ Bidders are agreeing that their Bid and Contract may be made public
- 7.35 Your bid will be valid for 60 days or your Bid will be rejected.
- 7.36 Bidders may only amend the contract terms during the clarification period only, only if you can demonstrate there is a legal or statutory reason why you cannot accept them. If you request changes to the Contract terms without such grounds and the Contracting Authority fail to accept your legal or statutory reason is reasonably justified, we may reject your Bid.
- 7.37 We will let you know the outcome of your Bid evaluation and where requested will provide a written debrief of the relative strengths and weaknesses of your Bid.
- 7.38 If you fail mandatory pass / fail criteria we will reject your Bid.
- 7.39 Bidders are required to use IE8, IE9, Chrome or Firefox in order to access the functionality of the Emptoris e-sourcing tool.
- 7.40 Bidders should note that if they are successful with their proposal the Contracting Authority reserves the right to ask additional compliancy checks prior to the award of any Contract. In the event of a Bidder failing to meet one of the compliancy checks

the Contracting Authority may decline to proceed with the award of the Contract to the successful Bidder.

- 7.41 All timescales are set using a 24-hour clock and are based on British Summer Time or Greenwich Mean Time, depending on which applies at the point when Date and Time Bids shall be submitted through Emptoris.
- 7.42 All Central Government Departments and their Executive Agencies and Non-Departmental Public Bodies are subject to control and reporting within Government. In particular, they report to the Cabinet Office and HM Treasury for all expenditure. Further, the Cabinet Office has a cross-Government role delivering overall Government policy on public procurement - including ensuring value for money and related aspects of good procurement practice.

For these purposes, the Contracting Authority may disclose within Government any of the Bidders documentation/information (including any that the Bidder considers to be confidential and/or commercially sensitive such as specific bid information) submitted by the Bidder to the Contracting Authority during this Procurement. The information will not be disclosed outside Government. Bidders taking part in this ITQ consent to these terms as part of the competition process.

- 7.43 The Government introduced its new Government Security Classifications (GSC) classification scheme on the 2nd April 2014 to replace the current Government Protective Marking System (GPMS). A key aspect of this is the reduction in the number of security classifications used. All Bidders are encouraged to make themselves aware of the changes and identify any potential impacts in their Bid, as the protective marking and applicable protection of any material passed to, or generated by, you during the procurement process or pursuant to any Contract awarded to you as a result of this tender process will be subject to the new GSC. The link below to the Gov.uk website provides information on the new GSC:

<https://www.gov.uk/government/publications/government-security-classifications>

The Contracting Authority reserves the right to amend any security related term or condition of the draft contract accompanying this ITQ to reflect any changes introduced by the GSC. In particular where this ITQ is accompanied by any instructions on safeguarding classified information (e.g. a Security Aspects Letter) as a result of any changes stemming from the new GSC, whether in respect of the applicable protective marking scheme, specific protective markings given, the aspects to which any protective marking applies or otherwise. This may relate to the instructions on safeguarding classified information (e.g. a Security Aspects Letter) as they apply to the procurement as they apply to the procurement process and/or any contracts awarded to you as a result of the procurement process.

USEFUL INFORMATION LINKS

- [Emptoris Training Guide](#)
- [Emptoris e-sourcing tool](#)
- [Contracts Finder](#)
- [Equalities Act introduction](#)
- [Bribery Act introduction](#)
- [Freedom of information Act](#)

Air Capability 2020

Overview of Requirement

July 2018



**British
Antarctic Survey**
NATURAL ENVIRONMENT RESEARCH COUNCIL

NERC
SCIENCE OF THE
ENVIRONMENT

Overview

The British Antarctic Survey (BAS), an institute of the Natural Environment Research Council (NERC) – part of UK Research & Innovation (UKRI) – delivers and enables world-leading interdisciplinary research in the Polar Regions. Through its extensive logistic capability and experience, BAS facilitates access for the international science community to the UK polar research operation. Numerous national and international collaborations, combined with an excellent infrastructure, help sustain a world-leading position for the UK in Antarctic affairs.

BAS is currently carrying out a major programme of Antarctic infrastructure and logistics modernisation. This is placing increased demand on the current intercontinental supply chain. To build resilience and redundancy into the supply chain BAS is seeking to augment its existing fleet with an additional passenger aircraft. This aircraft will work alongside the de Havilland Canada DHC-7 Series 110 (Dash 7) aircraft that currently provides BAS its intercontinental airbridge operation. The aircraft will be capable of transporting passengers and medical patients. It is expected to begin operating in the 2019/20 austral summer and is expected to be operated for at least five years until both it and the Dash 7 are replaced.

Background

NERC owns a fleet of five aircraft, operated by BAS. Four wheel-ski-equipped DHC-6 Twin Otters provide access and logistic support to remote unprepared field sites; two of these aircraft are equipped to conduct airborne science operations.

A single de Havilland Canada DHC-7 Series 110 (Dash 7) aircraft provides the intercontinental airbridge from gateway airfields in Chile and the Falkland Islands to

Antarctica. The airbridge operates to a compacted gravel runway at Rothera Research Station on the Antarctic Peninsula; operations take place throughout the austral summer, typically commencing in October and ending in March. Personnel and cargo are carried in a mixed passenger/cargo configuration. In addition, the aircraft is able to be rapidly re-rolled for all-cargo operations, for medical evacuation missions, and for search operations.

The Dash 7 also provides intracontinental cargo operations from Rothera to the forward logistic hub at Sky-Blu. This challenging semi-prepared airfield has a 1,000m natural blue-ice runway suitable for wheeled aircraft. It is anticipated in the future that additional blue-ice and hard-compacted snow runways will be opened.

In addition to its primary Antarctic logistics role, the aircraft is equipped to conduct airborne scientific research in both Polar Regions and worldwide.

The Antarctic working season is short and intense, and the timely achievement of costly scientific research programmes of global importance depends on robust, safe and reliable air capability. Low programme and operational risk are the overarching requirements for the Air Capability 2020 programme.

Requirement overview

Aircraft will be required to perform the following outline mission profiles:

Antarctic airbridge south – Fly passengers 880 nautical miles (nm) from Punta Arenas to Rothera Research Station, landing on 876m compacted gravel runway^{1,2}.

Antarctic airbridge north – Fly passengers 880 nm from Rothera Research Station to Punta Arenas, taking off from 876m compacted gravel runway^{3,4}.

Medical evacuation – Fly one critical patient and one medical attendant 1,000nm, not above 1,000ft cabin altitude, from Rothera Research Station to Montevideo via the Falkland Islands. Total payload 500kg.

These profiles are indicative only, conditions are given in the attached footnotes.

Cover: BAS Dash 7 aircraft flying above Rothera Research Station in the Antarctic Peninsula

For more information, please visit our website: www.bas.ac.uk

Notes:

¹ Required fuel overhead Rothera (all profile): greater of: two hours fuel reserves at holding speed, or a 400nm transit to Alternate, arriving with IFR final reserve (30 min at holding speed)

² Conditions – En-route: ISA, 25kt headwind; Rothera: ISA - 10°C, Pressure Altitude 1,000ft, 0kt wind

³ Required fuel overhead Punta Arenas: two hours fuel reserves at holding speed

⁴ Conditions – En-route: ISA, 25kt headwind



Operational requirements and criteria

For intercontinental airbridge operations, it is essential that the aircraft is twin-engine, pressurised, and offers a reasonable degree of passenger comfort, including hand baggage stowage, a toilet and basic galley facility. The maximum demonstrated crosswind limit must be no less than 30kts, and the aircraft should be certified and equipped for ditching.

BAS aircraft operate from short, austere, semi-prepared landing strips. Operation with a high degree of autonomy down to -40°C is required, as is high resistance to propeller and engine foreign-object damage. Pressure refuelling is desirable, but the aircraft should have a reversionary capability for overwing refuelling. The chosen aircraft will have excellent STOL capability, engine-out performance and manoeuvrability at low-level. Note that ski landing capability is not a requirement.

The selected aircraft shall have proven navigation performance to latitude 80°N and 80°S and shall be able to operate at extended range from alternate/diversion airfields. It should have long-range navigation and communication facilities, to include HF and Satcom.



Regulatory requirements and programme status

BAS aircraft operate under the regulatory authority of the Falkland Islands Directorate of Civil Aviation, and operations meet the requirements of OTAR-125. Aircraft types will require civil certification to CS-23 or CS-25 or equivalent, and be demonstrably compliant with all relevant current and anticipated regulatory requirements and technological drivers in all operational areas (Canada, USA, Latin America, South America and Antarctica) until 2025. BAS prefers aircraft types in widespread service worldwide with a demonstrable record in austere environments and a proven support infrastructure.

Funding for the Air Capability 2020 project has been identified and £5.5 million allocated to the aircraft purchase. This briefing note comprises part of an Early Market Engagement strategy in accordance with UK Government procurement policy. It is anticipated that a formal Request for Information will be issued to interested parties in August 2018.

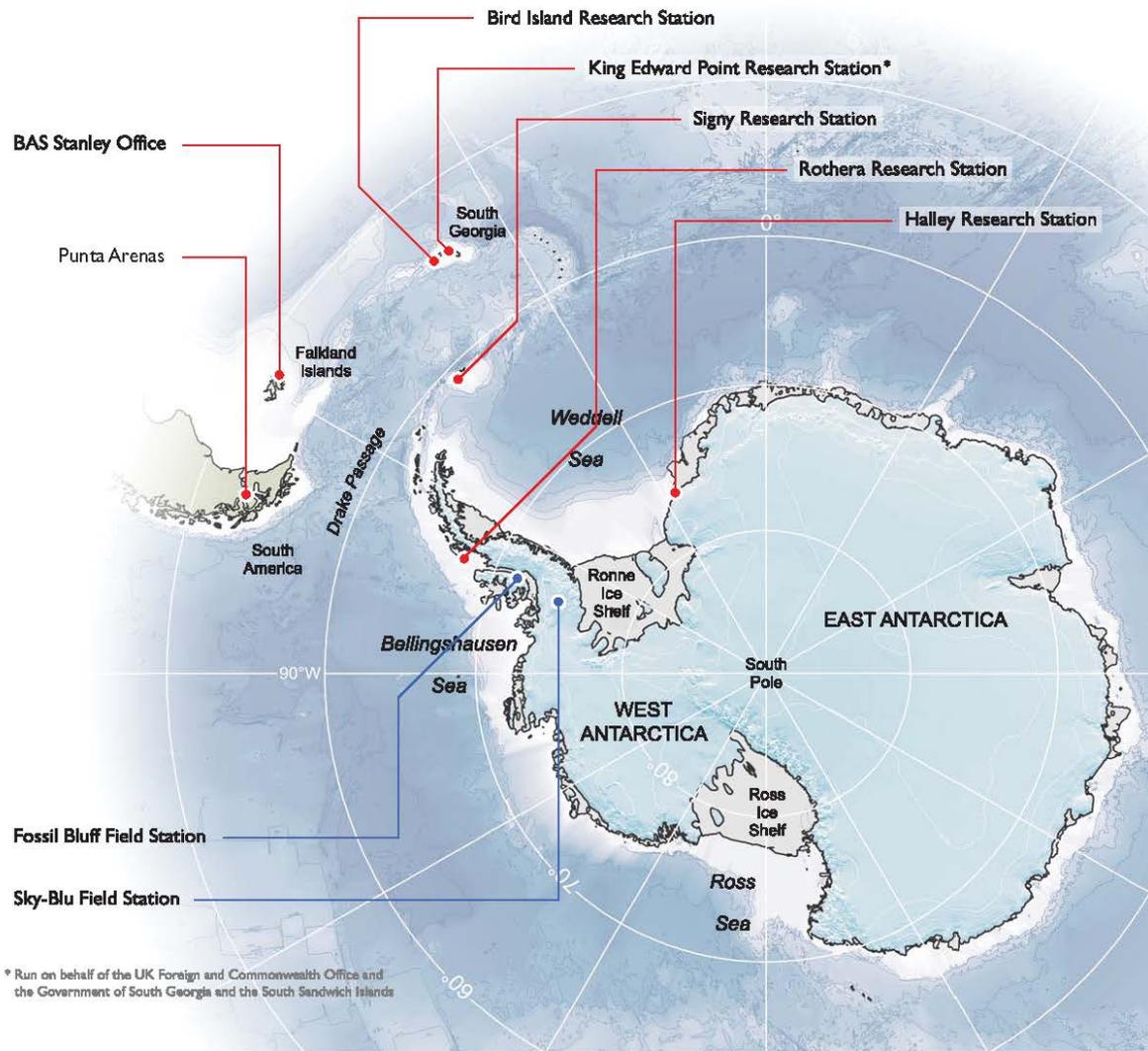


Top: The 876m gravel runway at Rothera Research Station, Antarctic Peninsula. **Middle:** The BAS Dash 7 aircraft on the blue ice runway at Sky-Blu Field Station. **Bottom:** The BAS Dash 7 aircraft in airborne science fit

i For more information, please visit our website: www.bas.ac.uk

Further information

Further information on BAS operations can be found at www.bas.ac.uk/polar-operations/sites-and-facilities.



* Run on behalf of the UK Foreign and Commonwealth Office and the Government of South Georgia and the South Sandwich Islands



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