

SCAGI - UK National Report

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26th October 2022



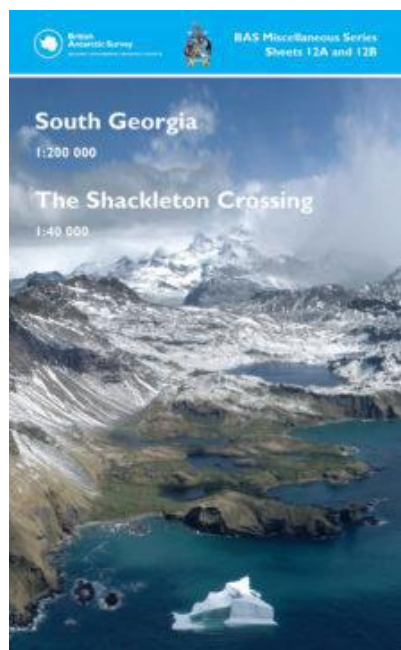
Outline

- Published maps
- Antarctic Digital Database
- Place names
- Operations Support
- Remotely Piloted Aircraft Systems (RPAS)
- Geospatial training
- GIS support for estates asset management and infrastructure modernisation
- Challenges and opportunities

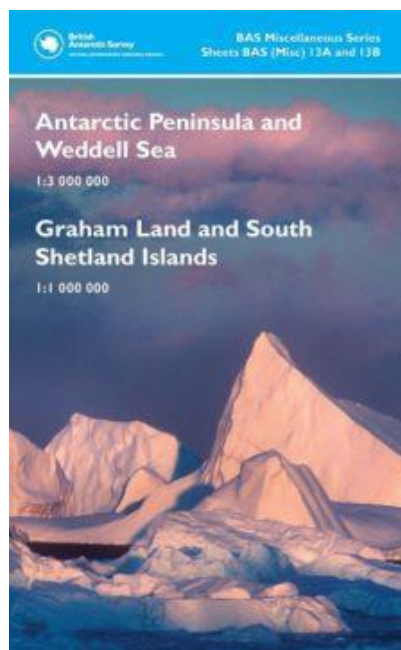


Published Maps

Updated since 2020

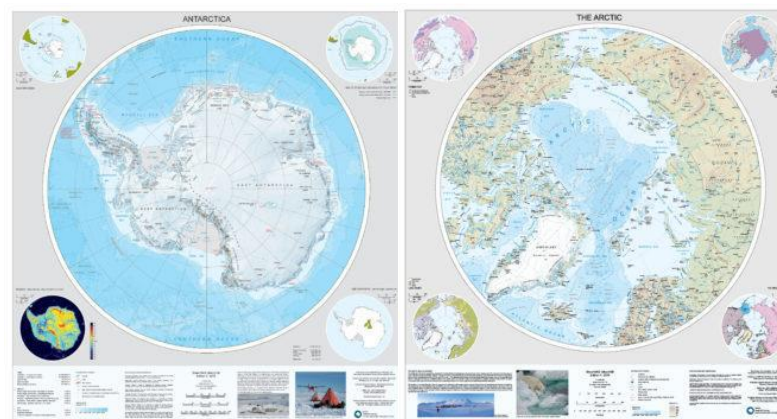


Misc 12
South Georgia and the
Shackleton Crossing
Edition 3, 2021



Misc 13
Antarctic Peninsula and
Weddell Sea
Edition 4, 2021

Updates in progress and new maps



Misc 15
Antarctica and Arctic
Edition 5, 2022

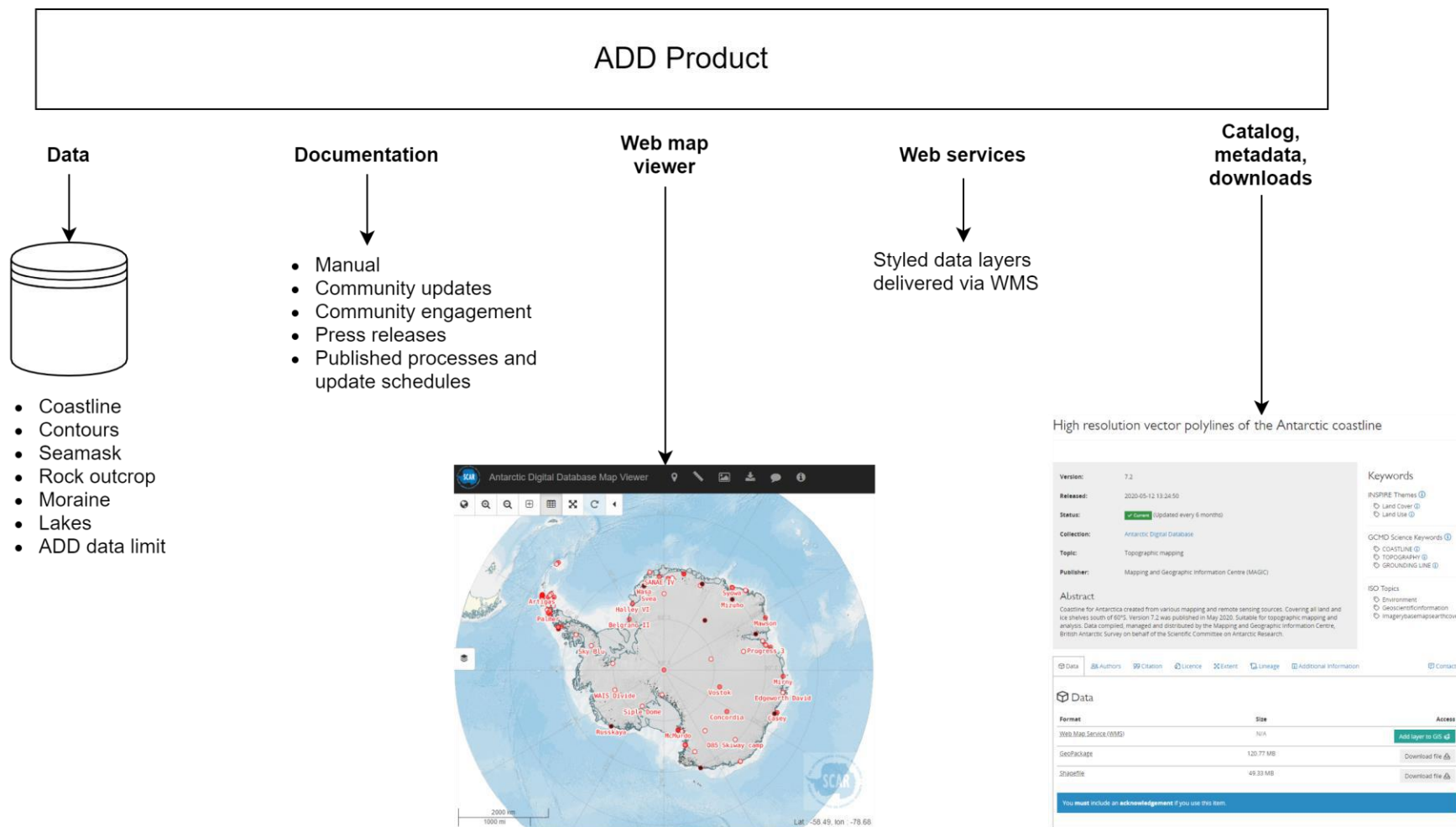


Adelaide Island and
Arrowsmith Peninsula
2023

Also in progress, a
new map for
South Orkneys and
Signy Island




Antarctic Digital Database (ADD)




Place-names

- Improvements to place name proposal process with introduction of web-based map form.
- ? Number of new names since July 2020
- Mapping of naming themes



Antarctic Place-names Committee



UK APC Proposal Form

Welcome to the UK Antarctic Place-names Committee application page. Please answer the questions with as much detail as possible in order for a case to be made to the committee.

Please refer to the [APC guidelines](#).

All submissions are sent to the Secretary. *The information you provide is sent directly with you throughout the process. Your contact information will be deleted. Contact details can be used for any other purpose. Your name will be included in the proposal round is complete. It is not distributed to other Antarctic place-name committees or any material published externally.*

If you do not wish to provide your contact details, please contact the Secretary.

Do you have a place to propose?

Feature Location

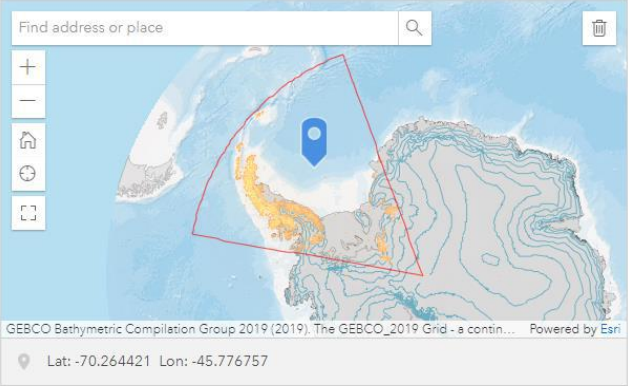
Where is this feature?*

Please click on the map to identify the feature you would like to propose for naming. The coordinates are captured automatically during submission.

The UK Antarctic Place-names Committee (APC) considers proposals and makes recommendations for place names within the British Antarctic Territory (BAT); the area of the Antarctic south of 60°S and extending from 20°W to 80°W. The APC also considers and recommends names for South Georgia and the South Sandwich Islands.

The APC also considers names for features within the sector of Antarctica between 80°W and 150°W and south of 60°S. Names approved for this area will be submitted to SCAR for inclusion in the Composite Gazetteer of Antarctica but will not be added to the BAT Gazetteer.

Where place names are proposed for features elsewhere in Antarctica, the APC considers the proposals. If the place names are considered acceptable, the APC liaises with the place-naming authorities of other countries.



Find address or place

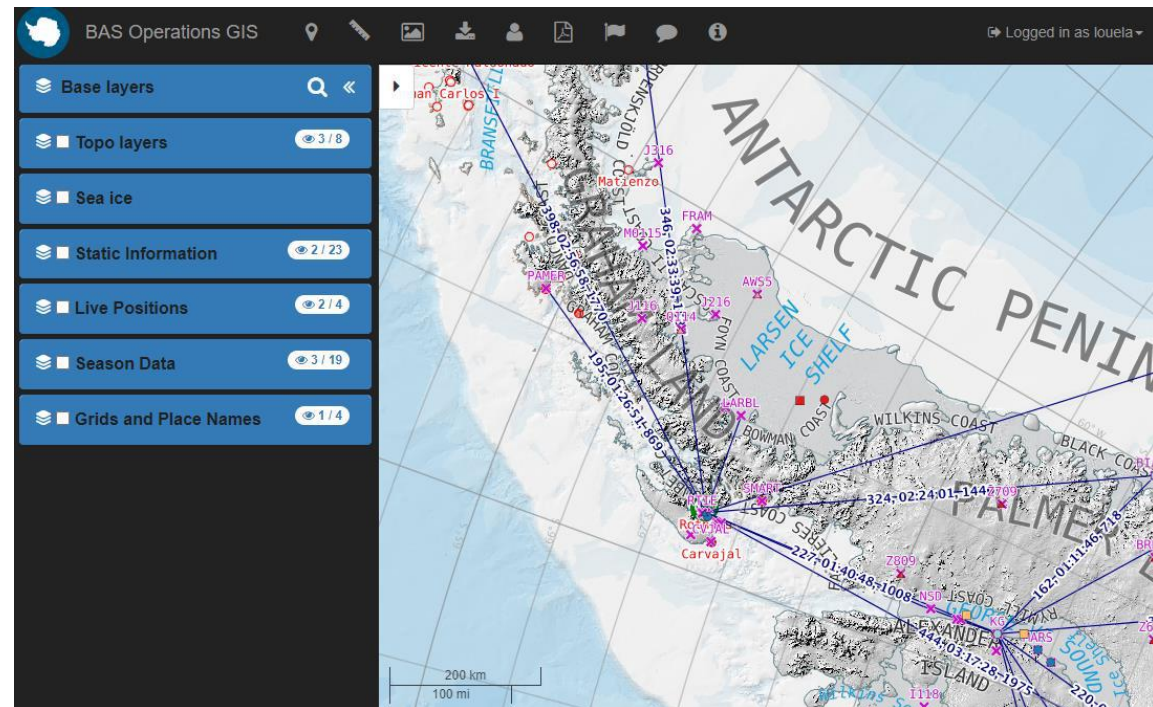
Lat: -70.264421 Lon: -45.776757

<https://survey123.arcgis.com/share/15a80c3e618443888bc3f35968d137f8>



Operations Support

- Air
 - Depot dataset management and routing tools for BAS pilots
- Land
 - Operations GIS – data management and visualisation for situational awareness and field operation planning
 - Support to Thwaites Glacier collaboration through provision of satellite imagery – Vision-1/MAXAR
- Sea
 - New polar ship Sir David Attenborough now in service
 - Provision of navigation support for sea ice trials 2022
 - Integration of sea ice information with on-board navigation systems
- Deployed station support to Rothera



Remotely Piloted Airborne Systems (RPAS)



First use of SenseFly eBee-X
South Georgia, December 2021



UAVe Ltd Prion 3
First Antarctic flights,
2022/2023 season



Windracers ULTRA
Antarctic test flights,
2023/2024 season



Geospatial training

- New Introduction to GIS training course, using QGIS
- Actively developing geospatial training resources with a polar focus and making these publicly available.
- Tailored training for operations workflows
- A series of bite sized training courses on a range of geospatial topics. For example:
 - using satellite imagery
 - projection and datums
 - Google Earth Engine for polar science

An Introduction to QGIS

Opening QGIS and understanding the interface


General Introduction

QGIS is a free and open-source desktop geographic information system (GIS) application that supports viewing, editing and analysis of geospatial data.

Development started on QGIS functionality in the early days, with large organisations now reusing the software for their own needs. It now has more functionality than ever, getting the hang of the basics, the many online tutorial websites.

The Interface

There are different ways to break down the interface, this shows one way to split up the interface.



Learning Objectives

- Gain a basic concept of what GIS is and some of its key applications, specifically for polar work
- Understand some of the key data types and how to work with them in QGIS
- Familiarise yourself with the interface of QGIS
- Load, symbolise and export vector and raster data
- Carry out and understand a basic spatial analysis query
- Create contours and a hillshade from a Digital Elevation Model
- Learn how to produce an output map or figure with the QGIS Print Layout function

Tools required

- **QGIS Desktop v3.x.** We recommend using the Long Term Release version. Installation instructions are given below.

Datasets

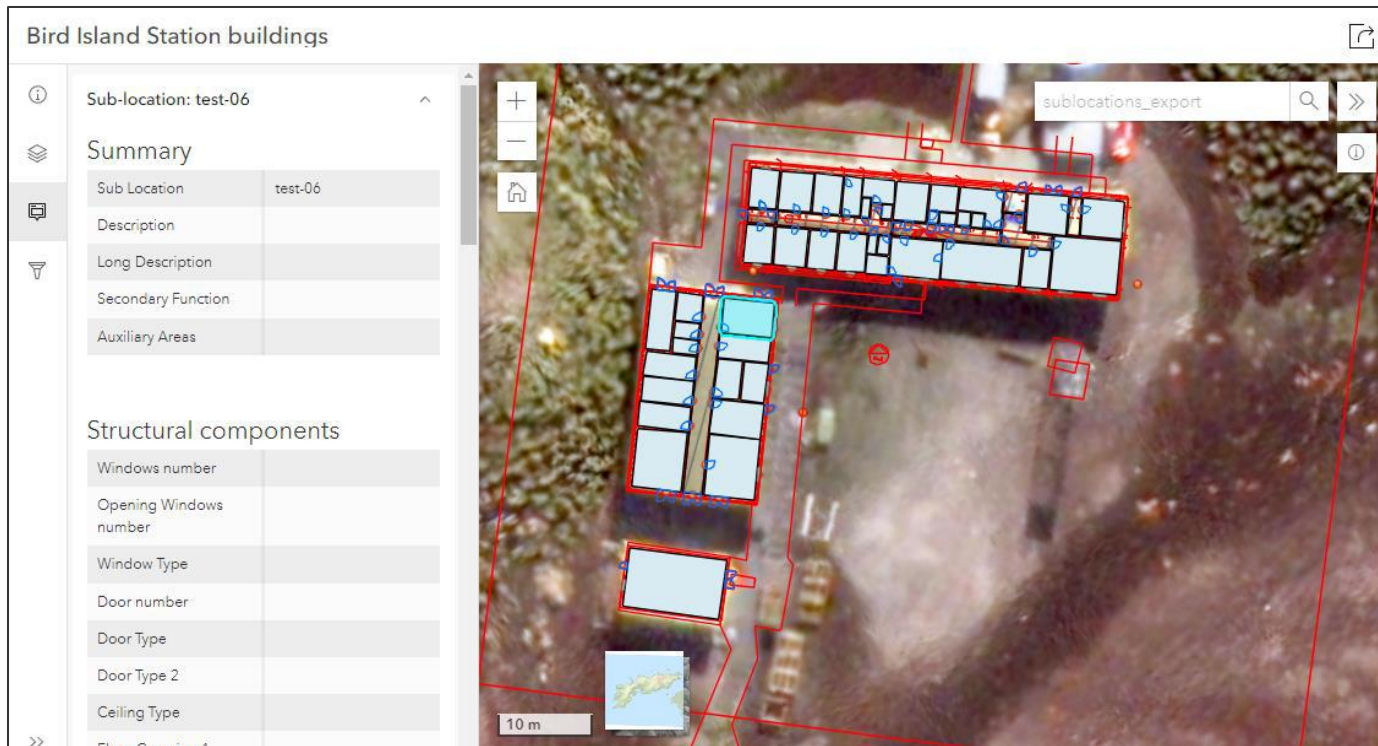
We have created a set of datasets which will be used throughout the tutorial for different exercises. Please **download this zip file**, unzip it, and **save it somewhere easy to access on your computer** (e.g. in a folder called 'QGIS Tutorial' in your main working drive or desktop). This folder will be your main working folder for the whole tutorial.

Access the zipped folder from [ftp](#), or from [OneDrive](#).

<https://guides.geospatial.bas.ac.uk/>



GIS support for Estate asset management and infrastructure modernisation



Proof of concept for integration of station asset management data into GIS – Bird Island Station

Rothera station re-development
Discovery building



Challenges and opportunities

- Limited resources, but increased use of spatial data in a wide range of polar applications.
- Growing recognition of need for spatial information across all business areas.
- Ensuring IT infrastructure and/or external cloud services are fit for purpose to support geospatial applications.
- Ensuring access to satellite data is maintained and utilised to maximum benefit.

