



POLAR SCIENCE
FOR PLANET EARTH

Overview of bathymetric data collected by the British Antarctic Survey

Alex Tate

Geoscience Data Manager



British
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL



Seafloor mapping platforms

- RRS James Clark Ross – Polar Science
Kongsberg EM120 (1°x1°) multibeam
- RRS Ernest Shackleton – Antarctic Logistics
Kongsberg EA600 singlebeam
- RRS James Cook – Worldwide science
Kongsberg EM120 (1°x1°)
plus EM710 multibeam

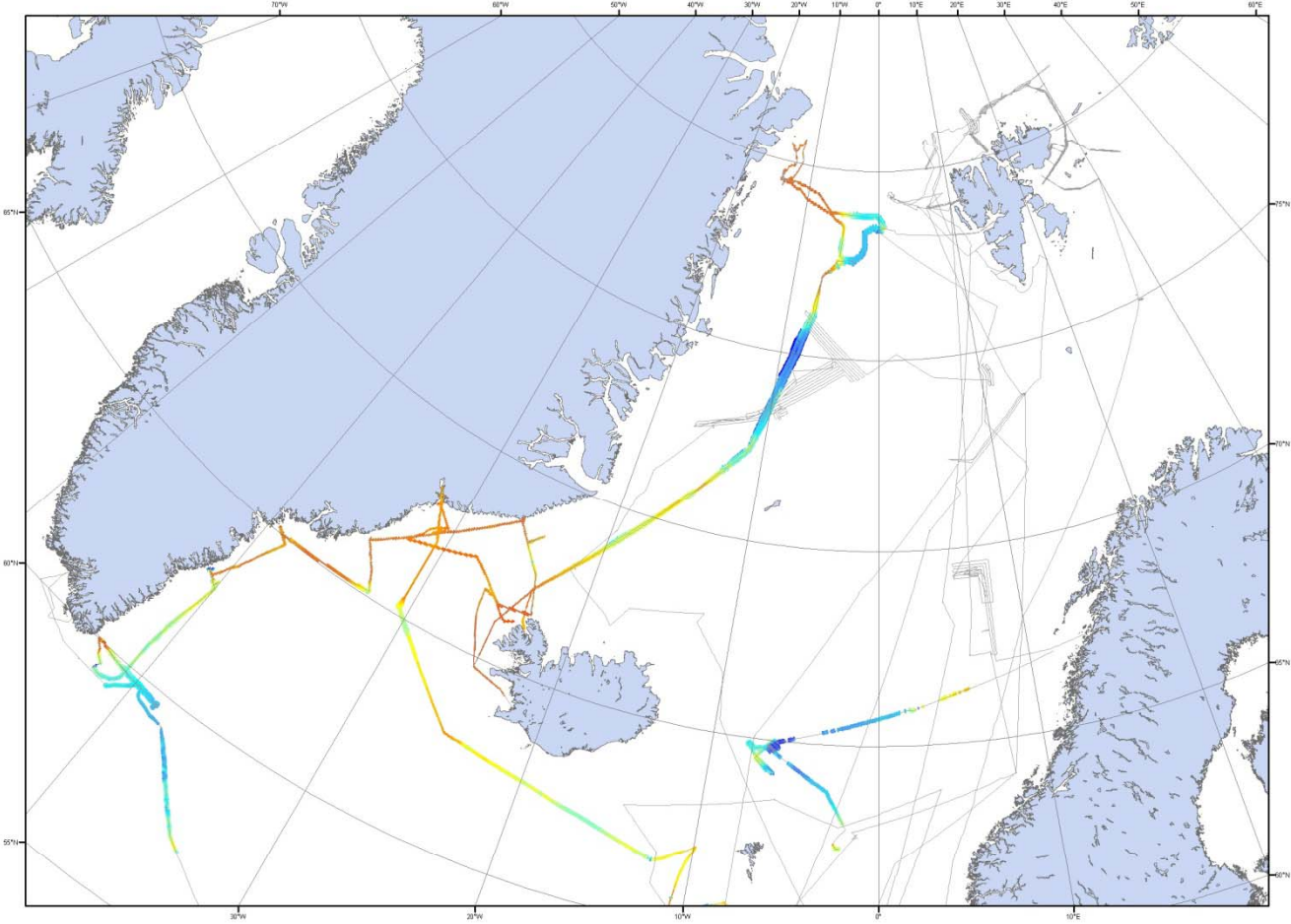


British
Antarctic Survey

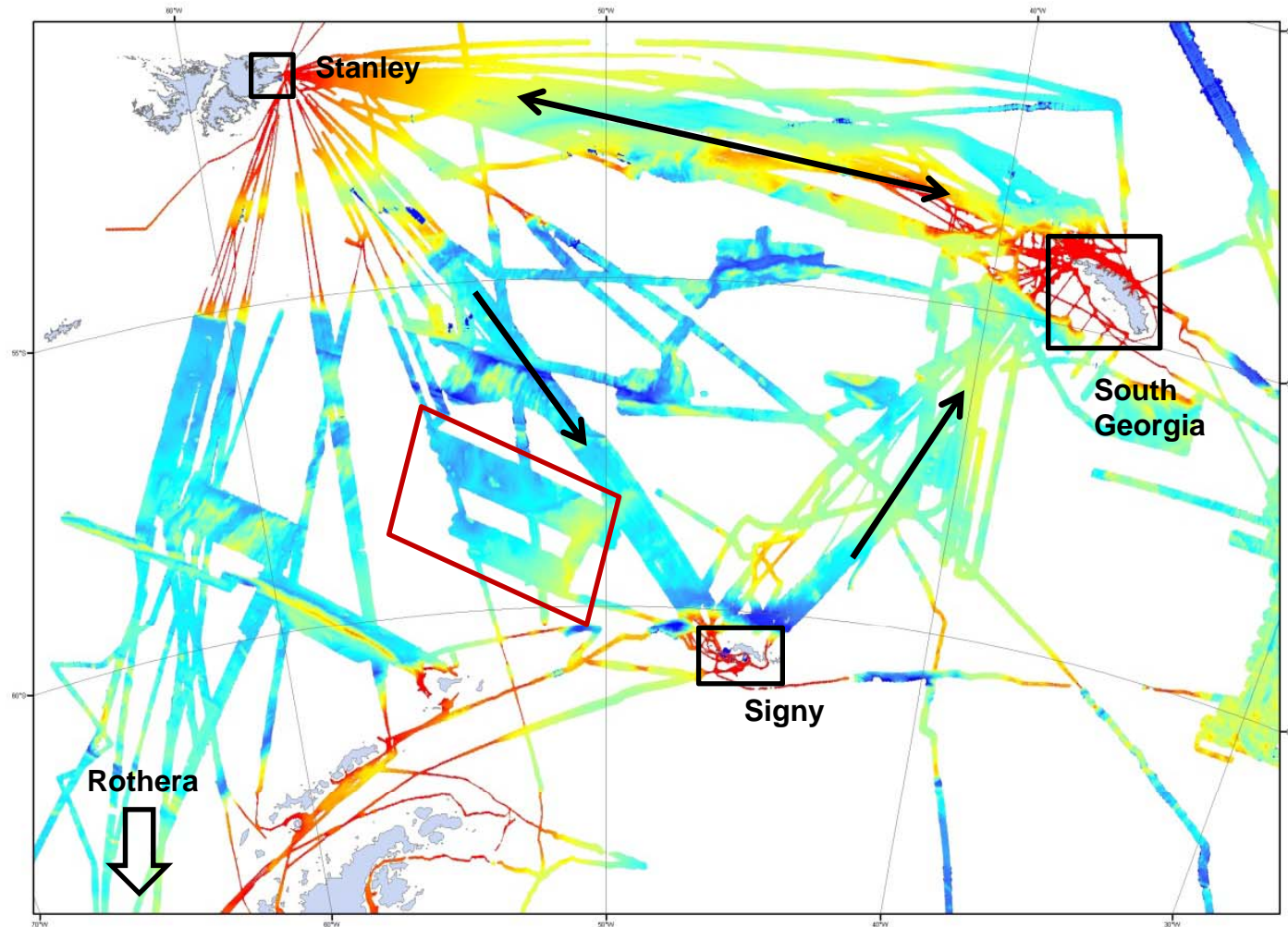
NATURAL ENVIRONMENT RESEARCH COUNCIL

POLAR SCIENCE
FOR PLANET EARTH

Operational Areas



Scotia Sea in detail

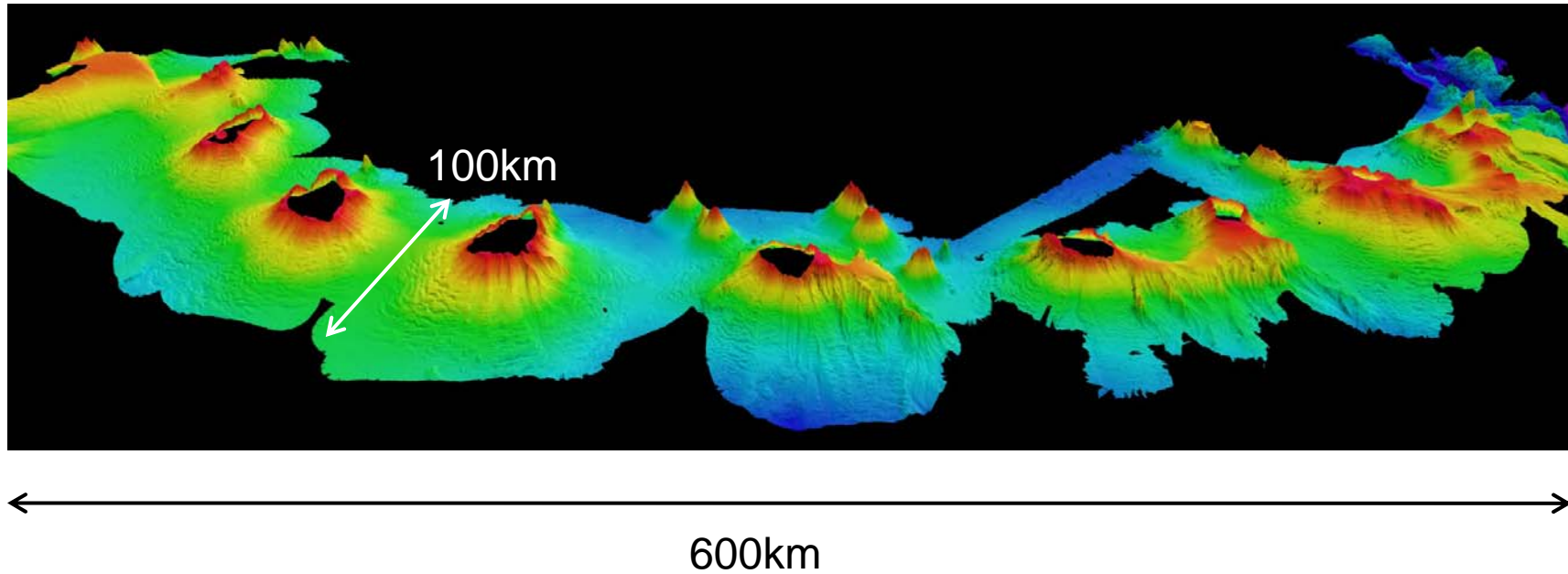


British
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

POLAR SCIENCE
FOR PLANET EARTH

Long Term Monitoring and Survey - recent multibeam data (2008-10)



British
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

POLAR SCIENCE
FOR PLANET EARTH

Links with other mapping efforts

- UK Hydrographic Office
- International Bathymetric Chart of the Southern Ocean
- Lamont Doherty (GeoMapApp)
- British Oceanographic Data Centre



British
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

POLAR SCIENCE
FOR PLANET EARTH

Data Management

- Stored on BAS storage area network under survey name
- Most surveys have raw, processed, clean xyz and quick view grid data
- Data processed using Kongsberg Neptune (2000 – 2006) and MB-System (>2006)
- Multibeam navigation (and metadata) stored in a spatial database accessed by.....



British
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

POLAR SCIENCE
FOR PLANET EARTH

BAS Geophysical Data Portal

The screenshot displays the BAS Geophysical Data Portal interface. The main map shows a bathymetric view of the Antarctic region with various colored tracks representing geophysical data. The interface includes a search bar, a table of results, and a login section for downloading data.

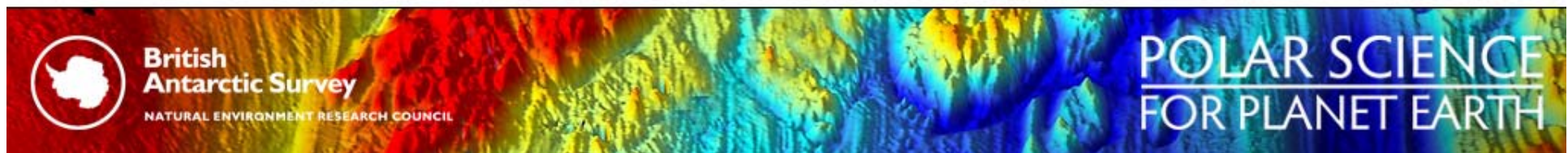
ID	Nav	Man	Topas	Multibeam	Download
JR059	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR060	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR061	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR063	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR066	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR069	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR071	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR075	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR076	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR077	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR079	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR080	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR082	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR090	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR096	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR097	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR100	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR104	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR105	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR106	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR107	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR109	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR112	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR114	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR116	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR129	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JR132	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Downloads are only available via BAS web login:
User:
Password:

If you don't have a password, [create one here](#).
Alternatively, [send data request to BAS](#).

Search
Cruise: All
Multiple cruises may be selected
Lon Min: Lat Min: Lon Max: Lat Max:
Type values or use Ctrl-Drag to select from map
Data: All

<http://geoportal.nerc-bas.ac.uk/GDP/>



Future Upgrades

- James Clark Ross – Upgrade to Kongsberg EM122 multibeam
- Underway CTD system
- Geophysical data manager post



British
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

POLAR SCIENCE
FOR PLANET EARTH