

Antarctic Factsheet Geographical Statistics

May 2005

AREA

Antarctica - including ice shelves and islands
(Around 58 times the size of the UK, or 1.4 times the size of the USA)

13,829,430km² 100.00%

Antarctica - excluding ice shelves and islands
Area ice free

12,272,800km² 88.74%
44,890km² 0.32%

Ross Ice Shelf
Ronne-Filchner Ice Shelf

510,680km² 3.69%
439,920km² 3.18%

LENGTH

Antarctic Peninsula
Transantarctic Mountains

1,339km
3,300km

Coastline*

*Note: coastlines are fractal in nature, so any measurement of them is dependant upon the scale at which the data is collected. Coastline lengths here are calculated from the most detailed information available.

TOTAL	45,317km	100.00%
Ice shelves	18,877km	42.00%
Rock	5,468km	12.00%
Ice coastline	20,972km	46.00%



Nunatak on the Antarctic Peninsula

HEIGHT

Mean height of Antarctica - including ice shelves	1,958m
Mean height of Antarctica - excluding ice shelves	2,194m
Modal height excluding ice shelves	3,090m

Highest Mountains

- | | |
|---|--------|
| 1. Mt Vinson (Ellsworth Mts.) | 4,892m |
| 2. Mt Tyree (Ellsworth Mts.) | 4,852m |
| 3. Mt Shinn (Ellsworth Mts.) | 4,661m |
| 4. Mt Craddock (Ellsworth Mts.) | 4,650m |
| 5. Mt Gardner (Ellsworth Mts.) | 4,587m |
| 6. Mt Kirkpatrick (Queen Alexandra Range) | 4,528m |
| 7. Mt Elizabeth (Queen Alexandra Range) | 4,480m |
| 8. Mt Epperly (Ellsworth Mts) | 4,359m |
| 9. Mt Markham (Queen Elizabeth Range) | 4,350m |
| 10. Mt Bell (Queen Alexandra Range) | 4,303m |

(In many case these heights are based on survey of variable accuracy)



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Other Notable Mountains

- | | |
|---|--------|
| 1. Mt Jackson (highest mountain on the Peninsula) | 3,184m |
| 2. Mt Erebus (Ross Island, highest offshore mountain) | 3,794m |
| 3. Mt Sidley (highest peak not in Ellsworth or Transantarctic Mts.) | 4,285m |

Ice Domes

(values are approximate)

	<i>Coordinates</i>	<i>Height</i>	<i>Bed Elevation</i>	<i>Potential Ice Depth</i>
1. Dome A	81°S, 77°E	4,093m	1,597m	2,486m
2. Dome C	75°S, 125°E	3,233m	249m	3,270m
3. Dome Fuji (Valkyrie)	77°S, 37°E	3,786m	963m	2,823m
4. Vostok station	77°S, 104°E	3,529m	352m	3,177m
5. South Pole	90°S, 0°E	2,771m	-57m	2,828m

ICE

(based on known survey data)

Mean thickness	1,829m
Mean thickness of grounded ice	2,034m
Mean thickness of East Antarctic Ice Sheet	2,226m
Mean thickness of West Antarctic Ice Sheet	1,306m

Maximum thickness	4,776m
Mean bed elevation	153m
Lowest bed elevation (Bentley subglacial trench)	-2,496m

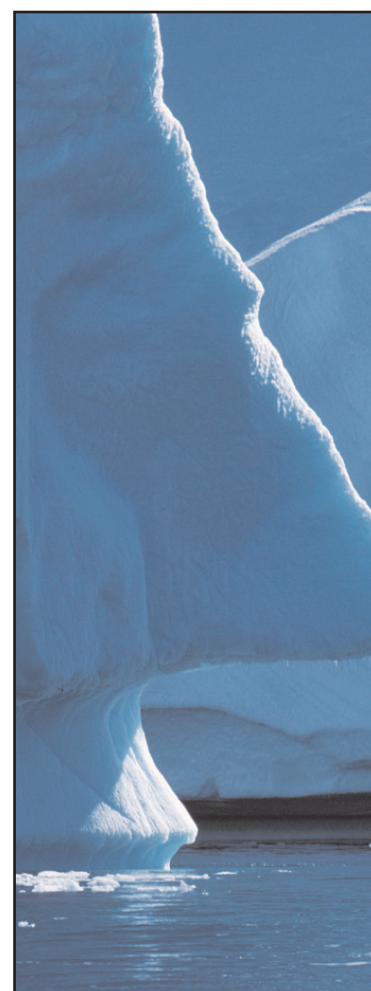
Ice volume

Total of ice sheets including ice shelves	25.4 million km ³
Grounded ice sheets	24.7 million km ³
Ice shelves	0.7 million km ³
Volume of Peninsula ice	0.1 million km ³

SOUTHERN OCEAN

Area below the Polar Front	31.8 million km ²
	~8.8% of the worlds ocean area

Volume below the Polar Front	115.5 million km ³
	8.7% of the world's ocean volume



A sculpted iceberg close to Rothera Research Station, Antarctica



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DISTANCES FROM

Cambridge (UK) to Rothera Station	14,435km
Cambridge (UK) to Halley Station	14,306km
Rothera Station to South Pole	2,492km
Halley Station to South Pole	1,603km
Area covered by BAS operations (2004, approx.)	3,500,000km ²

SOURCES

- Antarctic Digital Database (ADD), version 4.1
- OSU 200 m digital elevation model
- BAS (Misc) 9 BEDMAP: Bed topography of Antarctica
- General Bathymetric Chart of the Oceans
- Mountain heights from a variety of sources including ADD, USGS maps, BAS and Omega Foundation survey points.

British Antarctic Survey (BAS), part of the UK Natural Environment Research Council, is a world leader in research into global issues in an Antarctic context. BAS is the UK's national Antarctic operator. It is based in Cambridge, England and carries out the majority of its research programme in Antarctica and the Southern Ocean. It employs over 400 staff and has an annual budget of ~£40 million, runs nine research programmes and operates five research stations, two Royal Research Ships and five aircraft in and around Antarctica.



A glaciological field camp in the shadow of the Ellsworth Mountains, Ellsworth Land, Antarctica



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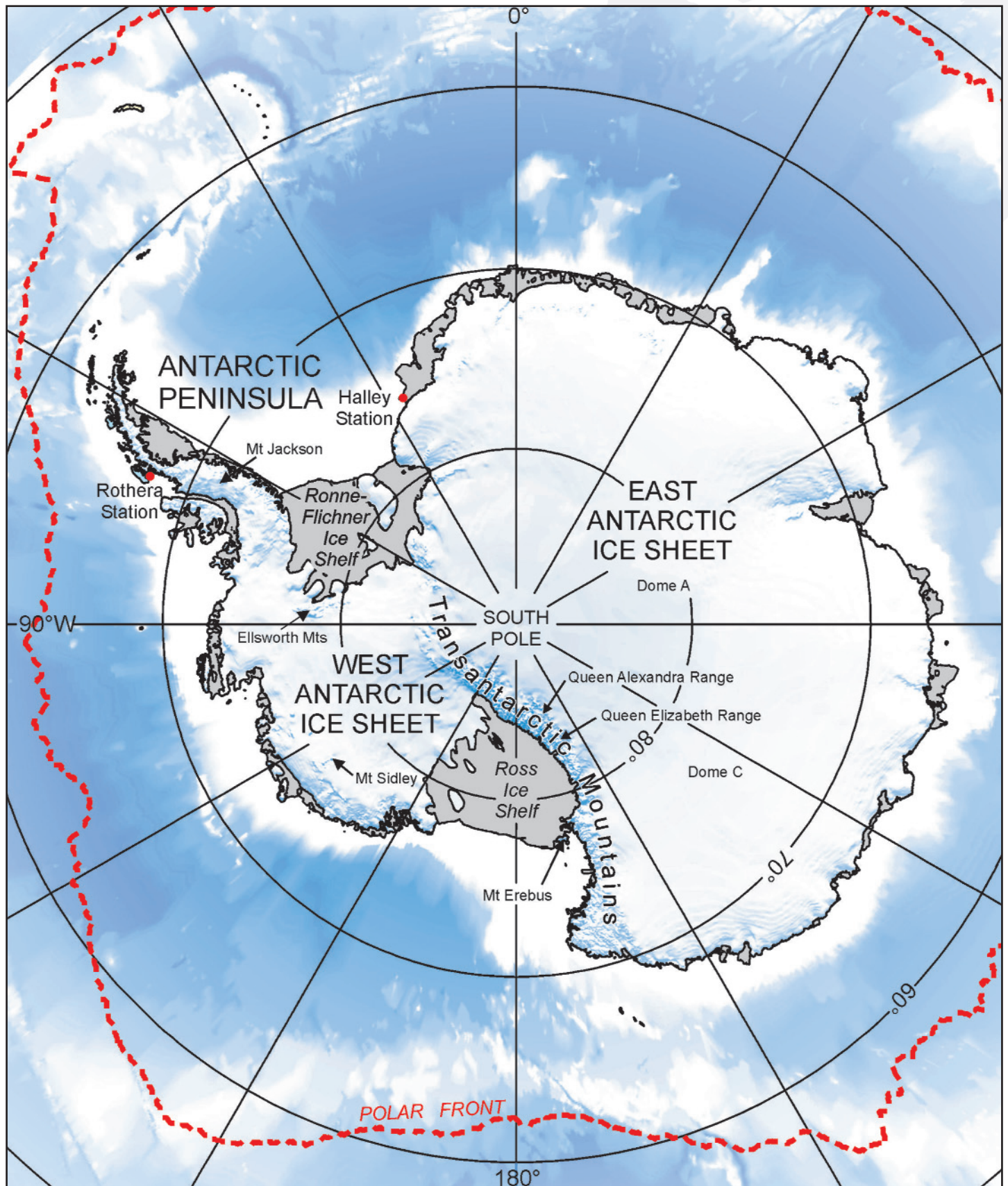
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