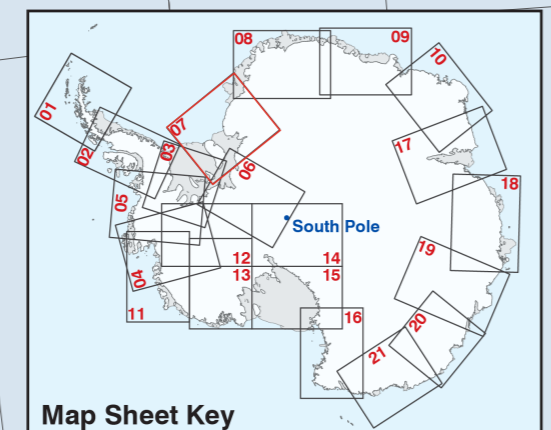
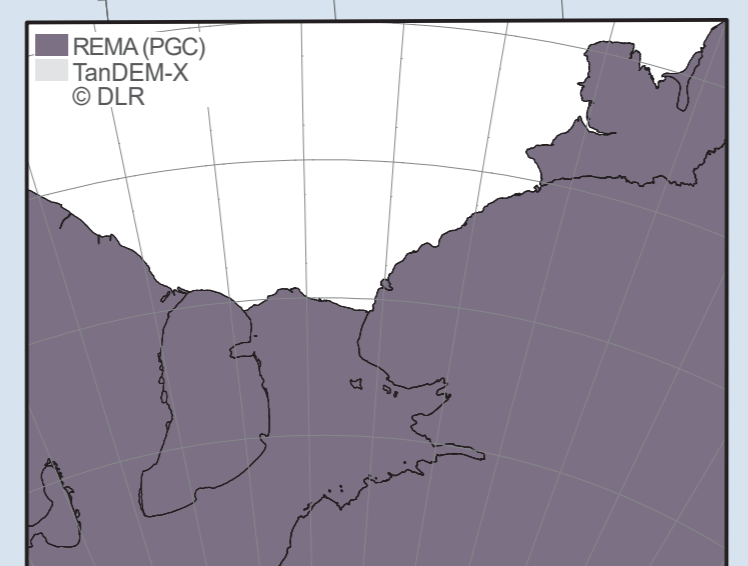


Edition 4, August 2022  
 Scale 1: 1 000 000, Projection: Polar Stereographic  
 Spheroid: WGS84 Latitude of true scale: 71°S

- |                                 |                                     |                |
|---------------------------------|-------------------------------------|----------------|
| — Contours (interval 1000 ft)   | ● All year scientific stations      | — Coastline    |
| ● Surveyed heights (feet)       | ● Summer only stations              | — Lake         |
| ● Estimated spot heights (feet) | ■ Camp/refuge                       | — Rock outcrop |
| ● Highest point on map (feet)   | ✕ Operations feature                | — Ice shelf    |
| NOT A SAFETY ALTITUDE           | ✦ ASMA (with number) or bird colony | — ASMA         |
|                                 | ✦ Bird colony                       |                |



**Warnings:**

This map is not an air navigation chart and it is not intended for in-flight navigation.

Contours and spot heights are in feet. Vertical Datum - WGS84 ellipsoid. Heights are measured as above ellipsoid.

Contours - derived from a merged Digital Elevation Model (DEM). Primary dataset used is REMA (2009). Areas of the continent primarily Antarctica, the Ellsworth Mountains, and the region S of 80° were filled in by TanDEM-X (© DLR), down-sampled to 200m resolution. If applicable, see next map for source data coverage.

Spot heights - derived from TanDEM-X 60m (© DLR) and REMA 8m mosaic (Polar Geospatial Centre). TanDEM-X (2009) altitude vertical accuracy = ±12m, REMA (2009) altitude vertical accuracy = average of 0.9m.

Accuracy not assessed across the entire DEM, so may vary across the map sheet.

Data Sources:  
 REMA, Polar Geospatial Centre, Howard, I. M., Paine, C., Smith, B. E., Noh, M. J., and Moran, P.: The Reference Elevation Model of Antarctica, The Cryosphere, 15, 695-674, 10.5194/tc-15-695-2021, 2021.

TanDEM-X © DLR https://go-service.dlr.de/web/dtsguide/tdm90/

Bird colony information is based on limited available data - absence of a bird colony symbol does not indicate absence of birds.

Topographic details from the SCAR Antarctic Digital Database (ADD) Version 7.0 (2022).

Antarctic Specially Protected Area (ASPA) and Antarctic Specially Managed Area (ASMA) details from www.itis.gov

Place names extracted from UK Geospatial: www.gov.uk/geospatial/data

Compiled by P. T. Fretwell, K. Bazany, C. Day, A. Fox, E. Carr, E. Field. Mapping and Geographic Information Centre, British Antarctic Survey, 2004-2022.

**Guidelines for the Operation of Aircraft near Concentrations of Birds**

The map shows the location of the main breeding concentrations of penguins and petrels in Palmer Land, Southern Graham Land and Alexander Island.

Low flying and unnecessary landings increase the risk of disturbance to wildlife, and in some areas will put your aircraft and crew at risk from bird strikes. To minimize the risk to both wildlife and aircraft, follow the guidelines below as closely as your operational requirements allow:

Penguins, giant petrel and other bird colonies are not to be overflown below 2000 ft (-610 m) above ground level, except when operationally necessary.

Accidents are avoided across the entire DEM, so may vary across the map sheet.

Landing within 1/2 nautical mile (~930 m) of penguin, giant petrel or other bird colonies should be avoided whenever possible.

Never hover or make repeated passes over wildlife concentrations or fly lower than necessary.

Maintain a vertical separation distance of 2000 ft (-610 m) AGL and a horizontal separation of 1/2 nautical mile (460 m) from the coastline whenever possible.

Cross coasts at right angles and above 2000 ft (-610 m) AGL where possible.

For further information regarding aircraft operations near concentrations of birds see the Antarctic Flight Information Manual (COMNAV 2014) www.comnav.gov.uk/FlightPages/AFIM.aspx

