British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

AIR OPERATIONS PLANNING MAP SERIES

MAP 07: East Ronne Ice Shelf to Halley

Edition 7, August 2025

Scale 1: 1 000 000, Projection: Polar Stereographic

Spheroid: WGS84 Latitude of true scale: 71°S

Scale 1: 1 000 000

20 km 0 20 40 60 80 km

10 nm 0 10 20 30 40 nm

- Contour (interval 1000 ft)
- 2610 Estimated spot height (feet)
- 10444 Highest point on map (feet) NOT A SAFETY ALTITUDE
- All year scientific station
- Summer only station
- Camp/refuge
- Operations feature
- Airfield
- Coastline
- Lake
- Rock outcrop
- Ice shelf
- ASMA
- 120 ASPA (with number) or bird colony
- Bird colony

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 strike. To minimize the risk to both wildlife and aircraft, follow the guidelines below as closely as your operational requirements allow:

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

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

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

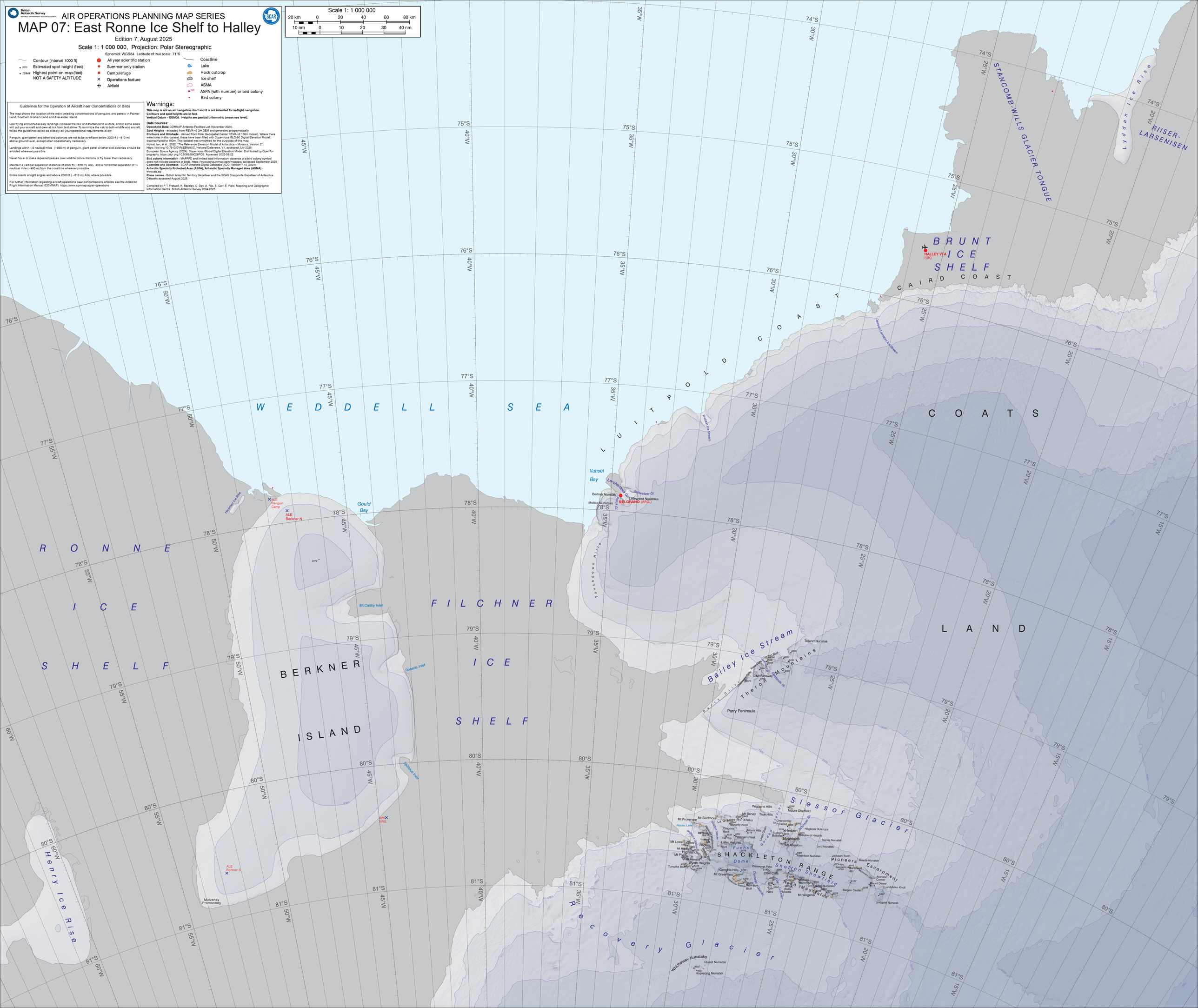
Maintain a vertical separation distance of 2000 ft (~610 m) AGL and a horizontal separation of ¼ nautical mile (~460 m) from the coastline wherever possible.

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 (COMNAP) https://www.comnap.aq/air-operations

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 – EGM08. Heights are geoidal/orthometric (mean sea level).

Data Sources:
Operations Data: COMNAP Antarctic Facilities List (November 2024).
Spot Heights - extracted from REMA v2 2m DEM and generated programatically.
Contours and Hillshade - derived from Polar Geospatial Center REMA v2 100m mosaic. Where there were holes in this dataset, these have been filled with Copernicus GLO-90 Digital Elevation Model, downsampled to 100m. This dataset was smoothed for the purposes of this map.
Howat, Ian, et al. 2022. "The Reference Elevation Model of Antarctica – Mosaics, Version 2", https://doi.org/10.7910/DVN/EBWBUC, Harvard Dataverse, V1, accessed July 2025.
European Space Agency (2024). Copernicus Global Digital Elevation Model. Distributed by OpenTopography. https://doi.org/10.5069/G9028PQB. Accessed 2025-09-22
Bird colony information - MAPPPD and limited local information: absence of a bird colony symbol does not indicate absence of birds. https://www.penguinmap.com/mapppd/ accessed September 2025
Coastline and Seamask - SCAR Antarctic Digital Database (ADD) Version 7.10 (2024).
Antarctic Specially Protected Area (ASPA), Antarctic Specially Managed Area (ASMA) - www.ats.aq
Place names - British Antarctic Territory Gazetteer and the SCAR Composite Gazetteer of Antarctica. Datasets accessed August 2025.

Compiled by P.T. Fretwell, K. Bazeley, C. Day, A. Fox, E. Carr, E. Field. Mapping and Geographic Information Centre, British Antarctic Survey 2004-2025.