Topographic Map (Satellite Image Map)
Topographische Karte (Satellitenbildkarte)

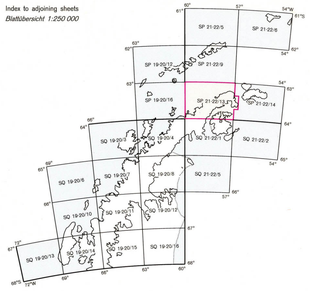
1: 250 000

TRINITY PENINSULA

SP 21-22/13

ANTARCTICA / *ANTARKTIS*

Index to adjoining sheets
Blattübersicht 1:250 000

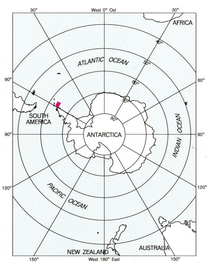


Sheet numbering system based on International Map of the World 1:1 000 000
Blatteinteilung nach Internationaler Weltkarte 1:1 000 000

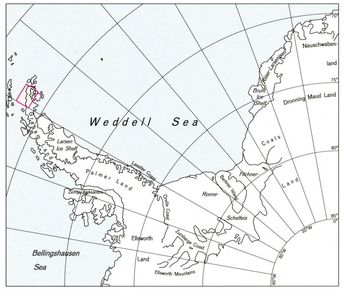
Sheet numbering system 1:250 000
Blatteinteilung 1:250 000

British Antarctic Survey, Cambridge, UK
Institut für Angewandte Geodäsie, Frankfurt am Main, Germany

Location diagram
Lagedagramm



Geographical names diagram
Geographische Namenübersicht



Satellite image mosaic / *Satellitenbildmosaik*

The image mosaic of this map consists of four Landsat TM scenes (see diagram) digitally merged at their edges by grey level assimilation. The four scenes are part of a block of 41 Landsat TM scenes covering the whole Antarctic Peninsula (from about 62°S to 76°S). All images were assembled geometrically into a single block by means of image block triangulation: 78 ground control points and 433 homologous points ("tie points") in the overlapping parts of adjacent scenes were identified and measured on the imagery. Standard deviations s_x and s_y of the coordinates of these adjusted tie points, and of the ground control used, are about ± 75m.

Ground control / *Geländefestpunkte*

The ground control used for the image mosaicking was positioned by a terrestrial survey network acquired between 1944 and 1976 and by Doppler satellite positioning carried out by British and American field survey campaigns in 1976/79. All data were fitted together by means of a least square adjustment. Standard deviations s_x and s_y of this adjustment for the ground control is ± 11 m.

Elevation / *Höhen*

Contours and spot heights were derived from published maps[1, 2, 3] (see 'Sources used for map compilation'). Systematic position errors on the 1:250 000 scale source maps[1, 3] were corrected by fitting the contours and spot heights interactively to the topography visible on the satellite image mosaic. It is possible that, in some areas, the reliability of contours may be no better than ± 100 m in height.

Topography / *Topographie*

In the south-eastern part of the map, topographic features were taken from a recently published map[1]. In the area not covered by this map such features were interpreted and classified on the geo-referenced Landsat TM data using the vertical aerial photography listed below:

Falkland Islands and Dependencies Aerial Survey Expedition 1956-57: 17/FID/3, 6 & 7; 26/FID/15, 24, 27, 32-34, 40-42, 45-47, 50, 55, 56, 58, 75-81, 97, 103-106, 109, 110 & 124.

Islands smaller than 500 metres in length, particularly those along the western coast of Trinity Peninsula, and offshore rocks were derived from an earlier map[2] and fitted to the satellite image mosaic.

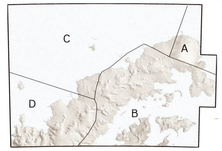


Image Identification
Bildaufnahmedaten

Landsat-4, -5
Thematic Mapper (TM)

	Path/Row *Spur/Reihe*	Date *Datum*
A	215/104	18 Feb 90
B	215/105	29 Feb 88
C	217/104	28 Jan 89
D	217/105	01 Mar 86

Topographic and satellite image data / *Topographische und Satellitenbilddaten*

Unprocessed digital raw data of Landsat TM purchased from EOSAT, Lanham, USA. Digital image processing and mosaicking by Institut für angewandte Geowissenschaften (IfG), Offenbach am Main, Ingenieurbüro für Fernerkundung, Photogrammetrie und Kartographie (FPK), Berlin, and Institut für Angewandte Geodäsie (IfAG), Frankfurt am Main. This work is part of a project which was financially supported by the German Federal Ministry of Research and Technology under project identification number POL 0034.

Scientific investigation of geographical names
Wissenschaftliche Bearbeitung der geographischen Namen
U. Bachmann and J. Sievers, Frankfurt am Main, J. Thomson, Cambridge

Topographic satellite image interpretation
Topographische Satellitenbildinterpretation
A. Fox, Cambridge

Digital image processing (final compilation) and cartography
Digitale Bildverarbeitung (Schlußbearbeitung) und Kartographie
B. Heidrich, Frankfurt am Main

Geographical Names / *Geographische Namen*

At present there are more than 40 signatory countries to the Antarctic Treaty, and geographical names appear in 15 or more languages and five scripts. Unintentional multiple naming of features, and either translation or mistransliteration of Antarctic geographical names have caused ambiguity and confusion in the past, particularly in the Antarctic Peninsula region where many nationalities undertake scientific research. Although internationally agreed guidelines for proposing new geographical names and for using existing ones have yet to be set up, space on a map is limited and it is difficult to show more than one name per feature.

This map has been produced jointly by the Institut für Angewandte Geodäsie, Germany, and the British Antarctic Survey, United Kingdom, in accordance with the provisions of the Antarctic Treaty. The geographical names given on the map are used in their original language according to guidelines relating to historical priority and they do not necessarily imply acceptance by all Antarctic Treaty Contracting Parties. These guidelines are under discussion by the Scientific Committee on Antarctic Research.

Sources used for map compilation / *Quellen für die Kartenbearbeitung*

a) Gazetteers and geographical names indexes / *geographische Namenbücher und -verzeichnisse*

- Hattersley-Smith, G. (1991): The history of place-names in the British Antarctic Territory. British Antarctic Survey Scientific Reports, No. 113 (Parts I and II), British Antarctic Survey, Cambridge, 670 pp.
- Antarctic Place-names Committee (1993): Gazetteer of the British Antarctic Territory, 2nd edition. Her Majesty's Stationary Office, London, 45 pp.
- United States Board on Geographic Names (1981): Geographic Names of the Antarctic (compiled and edited by F.G. Alberts). National Science Foundation, Washington, 959 pp.
- United States Board on Geographic Names (1989): Gazetteer of the Antarctic, fourth edition. National Science Foundation, Washington, 145 pp.
- Servicio de Hidrografia Naval (1993): Nomenclador Antártico Argentino (compiled by M.C. Morandi). Publicacion H-920, Buenos Aires, 67 pp.
- Servicio de Hidrografia Naval (1992): Indice Toponimico. Buenos Aires (digital data)
- Servicio de Hidrografia Naval (1970): Toponimia del Sector Antártico Argentino (compiled by E.J. Pierrou). Publicación H-914, Buenos Aires, 746 pp.
- Servicio de Hidrografia Naval (1982): Toponimia del Sector Antártico Argentino. Tomo II (compiled by E.J. Pierrou), Publicación H-914, Buenos Aires, 281 pp.
- Instituto Hidrográfico de la Armada de Chile (1974): Diccionario de Nombres Geográficos de la Costa de Chile, Volumen III, Territorio Antártico, 1° edición, Publicacion 3052, Valparaiso, 312 pp.
- Main Administration of Geodesy and Cartography (1987): Slovar' geograficeskih nazvanij Antarktiki (index of geographical names of the Antarctic). CNIIGAiK, Moscow, 408 pp.

b) Maps and charts / *Kartenmaterial*

1. James Ross Island, 1:100000 scale. Sheet 2, BAS 100 Series (topographic maps), British Antarctic Survey, Cambridge, 1995
2. Trinity Peninsula, 1:250000 scale. Sheet SP 21-22/13, Edition 1. BAS 250 Series. Directorate of Overseas Surveys, Tolworth, 1974
3. Joinville Island, 1:250000 scale. Sheet SP 21-22/14 (Extended), Edition 1, BAS 250 Series. Directorate of Overseas Surveys, Tolworth, 1973
4. British Antarctic Territory, Sheet SP 21-22/13, APC (Jan 1994), 1:250000 scale, Antarctic Place-names Committee. Foreign and Commonwealth Office, London, 1994
5. Hope Bay, Trinity Peninsula, Graham Land, 1:25000 scale, APC Misc. 49, 3rd edition. Antarctic Place-names Committee. Foreign and Commonwealth Office, London,1988
6. Peninsula Trinidad, 1:300000, H-713, 2° Edición 1984, Ultima Corrección 1990. Servicio de Hidrografia Naval de la Armada Argentina
7. Isla Elefante a Isla Trinidad, 1:500000, N° 1400, Edición 1971, Ultima Corrección 1990. Instituto Hidrográfico de la Armada de Chile
8. Isla Trinidad a Estrecho Matha, 1:500000, N° 1500, Edición 1972, Ultima Corrección 1991. Instituto Hidrográfico de la Armada de Chile

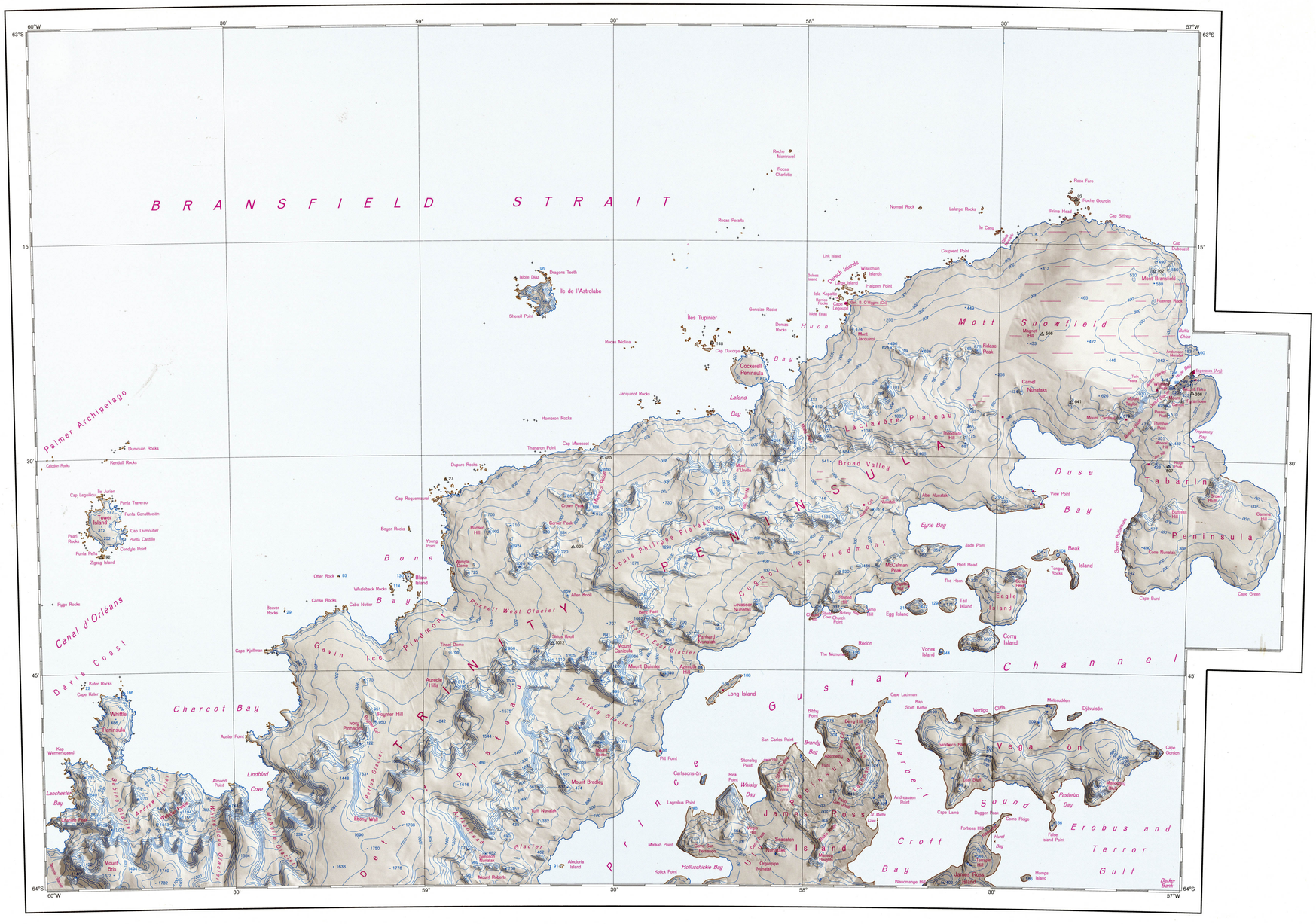
English equivalents of generic terms of geographical names
Englische Äquivalente von Gattungsbezeichnungen geographischer Namen

Bahía	(ARG)	bay
Cabo	(ARG)	cape
Caleta	(ARG)	bay
Canal	(FRA)	channel
Cerro	(ARG)	hill
Ile(s)	(FRA)	island(s)
Isla	(CHL)	island
Islote	(CHL)	islet
Kap	(SWE)	cape
Mont	(FRA)	mountain
-ön	(SWE)	island
Paso	(ARG)	pass
Punta	(ARG)	point
Roca(s)	(ARG, CHL)	rock(s)
Roche(s)	(FRA)	rock(s)
-udden | (SWE) | point, peninsula |

ARG, Argentina; CHL, Chile; FRA, France; SWE, Sweden

TRINITY PENINSULA

SP 21-22/13



Legend/*Legende*

- Coastline / *Küstenlinie*
- Ice cliff / *Eiskliff*
- Lake / *Binnensee*
- Rock awash / *Klippe*
- 122 Survey control station (height in metres) / *Vermessungspunkt (Höhe in Metern)*
- 1000 / 500 Contour, 100m interval / *Höhenlinie, 100m-Äquidistanz*
- 642 Spot height (in metres) / *Einzelpunkthöhe (in Metern)*
- Esperanza (Arg) Scientific station / *Forschungsstation*
- Hut, depot / *Hütte, Depot*
- Cloud or cloud shadow / *Wolke oder Wolkenschatten*

Scale/*Maßstab* 1:250000

Kilometres 5 0 5 10 15 20 25 *Kilometer*
4 Millimeter = 1 Kilometer

Statute miles 5 0 5 10 15 *Meilen*
1 Zoll Meile = 1936,34 Meter

Nautical miles 5 0 5 10 15 *Seemeilen*
1 Seemeile = 1852 Meter

Map projection: Lambert Conformal Conic Projection
Kartenabbildung: Konforme konische Abbildung

Standard parallels: 60°40'S and 63°20'S
Bezugsbreiten:

Horizontal datum: World Geodetic System 1984
Bezugsellipsoid: (WGS84)

Heights in metres, vertical datum is mean sea level.
Höhenangaben in Metern, bezogen auf mittleren Meeresspiegel.

Map projection parameters have been used in accordance with the recommendations of the Working Group on Geodesy and Geographic Information of the Scientific Committee on Antarctic Research (SCAR)

Die Parameter der Kartenabbildung wurden in Übereinstimmung mit den Empfehlungen der Arbeitsgruppe "Geodesy And Geographic Information" des Scientific Committee on Antarctic Research (SCAR) verwendet.

Published by / *Herausgabe:* 1996

© Institut für Angewandte Geodäsie and Richard-Strauss-Allee 11 D-60598 Frankfurt am Main Germany

British Antarctic Survey High Cross, Madingley Road Cambridge CB3 0ET United Kingdom

Printed by / *Druck:*
Institut für Angewandte Geodäsie, Frankfurt am Main

Reproduction in any form and all forms of digitisation without the permission of the publisher are prohibited under copyright.
Nachdruck und sonstige Vervielfältigung und jede Form von Digitalisierung nur mit Genehmigung des Herausgebers.