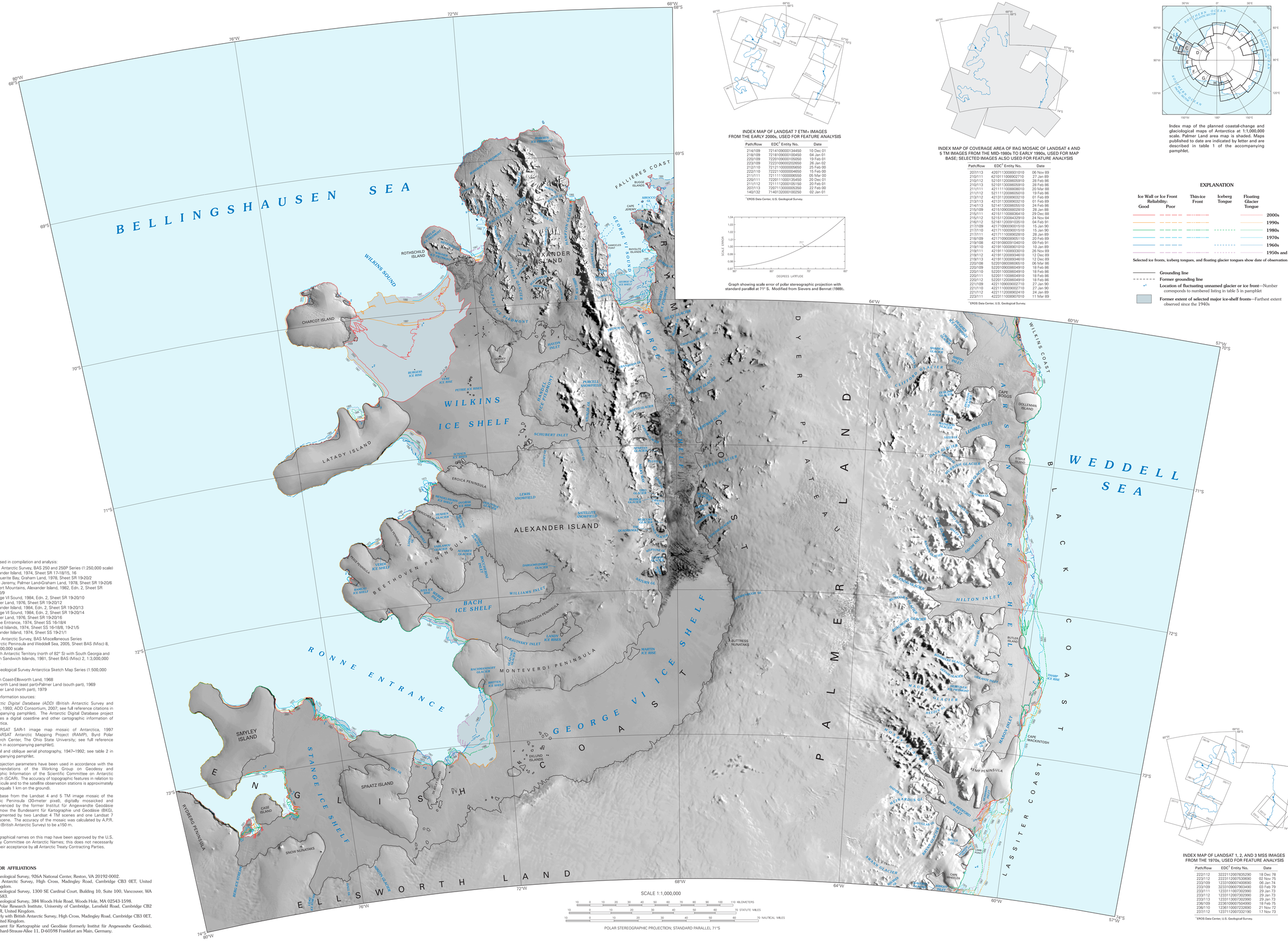
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with the
BRITISH ANTARCTIC SURVEY, CAMBRIDGE, UNITED KINGDOM
SCOTT POLAR RESEARCH INSTITUTE, UNIVERSITY OF CAMBRIDGE, UNITED KINGDOM
BUNDESAMT für KARTOGRAPHIE und GEODÄSIE, FRANKFURT AM MAIN, GERMANY

GEOLOGIC INVESTIGATIONS SERIES
MAP I–2600–C
Explanatory pamphlet accompanies map



INDEX MAP OF LANDSAT 7 ETM+ IMAGES
FROM THE EARLY 2000s, USED FOR FEATURE ANALYSIS

Path/Row	EDC[1] Entity No.	Date
214/109	7214109000134450	10 Dec 01
218/109	7218109000100450	04 Jan 01
220/109	7220109000105050	19 Feb 01
223/109	7223109000202650	26 Jan 02
212/110	7212110000005650	25 Feb 00
222/110	7222110000004650	15 Feb 00
211/111	7211111000006550	05 Mar 00
220/111	7220111000135450	20 Dec 01
211/112	7211112000105150	20 Feb 01
207/113	7207113000005350	22 Feb 00
140/132	7140132000100250	02 Jan 01

[1] EROS Data Center, U.S. Geological Survey.

Graph showing scalle error of polar stereographic projection with standard parallel at 71° S. Modified from Sievers and Bennat (1989).

INDEX MAP OF COVERAGE AREA OF IfAG MOSAIC OF LANDSAT 4 AND 5 TM IMAGES FROM THE MID-1980s TO EARLY 1990s, USED FOR MAP BASE; SELECTED IMAGES ALSO USED FOR FEATURE ANALYSIS

Path/Row	EDC[1] Entity No.	Date
207/113	4207113008931010	06 Nov 89
210/111	4210111008902710	27 Jan 89
210/112	5210112008605910	28 Feb 86
210/113	5210113008605910	28 Feb 86
211/111	4211111008808910	20 Mar 88
211/112	5211112008605010	19 Feb 86
213/112	4213112008903210	01 Feb 89
213/113	4213113008903210	01 Feb 89
214/113	5214113008605310	24 Feb 86
215/109	4215109008802810	28 Jan 88
215/111	4215111008836410	29 Dec 88
215/112	5215112008432910	24 Nov 84
216/112	5216112009103510	04 Feb 91
217/109	4217109009001510	15 Jan 90
217/110	4217110009001510	15 Jan 90
217/111	4217111008902810	28 Jan 89
218/109	4217109008905110	20 Feb 89
219/108	4219108009104010	09 Feb 91
219/110	4219110008901010	10 Jan 89
219/111	4219111008933010	26 Nov 89
219/112	4219112008934610	12 Dec 89
219/113	4219113008934610	12 Dec 89
220/108	5220108008605110	06 Mar 86
220/109	5220109008604910	18 Feb 86
220/110	5220110008604910	18 Feb 86
220/111	5220111008604910	18 Feb 86
220/112	5220112008604910	18 Feb 86
221/109	4221109009002710	27 Jan 90
221/110	4221110009002710	27 Jan 90
221/112	4221112008902410	24 Jan 89
223/111	4223111008907010	11 Mar 89

[1] EROS Data Center, U.S. Geological Survey.

Index map of the planned coastal-change and glaciological maps of Antarctica at 1:1,000,000 scale. Palmer Land area map is shaded. Maps published to date are indicated by letter and are described in table 1 of the accompanying pamphlet.

EXPLANATION

Ice Wall or Ice Front Reliability: Good / Poor
Thin-ice Front
Iceberg Tongue
Floating Glacier Tongue

- 2000s
- 1990s
- 1980s
- 1970s
- 1960s
- 1950s and 1940s

Selected ice fronts, iceberg tongues, and floating glacier tongues show date of observation

- Grounding line
- Former grounding line
- Location of fluctuating unnamed glacier or ice front—Number corresponds to numbered listing in table 5 in pamphlet
- Former extent of selected major ice-shelf fronts—Farthest extent observed since the 1940s

Maps used in compilation and analysis:

British Antarctic Survey, BAS 250 and 250P Series (1:250,000 scale)
Alexander Island, 1974, Sheet SR 17-18/15, 16
Marguerite Bay, Graham Land, 1978, Sheet SR 19-20/2
Cape Jeremy, Palmer Land-Graham Land, 1978, Sheet SR 19-20/6
Colbert Mountains, Alexander Island, 1982, Edn. 2, Sheet SR 19-20/9
George VI Sound, 1984, Edn. 2, Sheet SR 19-20/10
Palmer Land, 1976, Sheet SR 19-20/12
Alexander Island, 1984, Edn. 2, Sheet SR 19-20/13
George VI Sound, 1984, Edn. 2, Sheet SR 19-20/14
Palmer Land, 1976, Sheet SR 19-20/16
Ronne Entrance, 1974, Sheet SS 16-18/4
Eklund Islands, 1974, Sheet SS 16-18/8, 19-21/5
Alexander Island, 1974, Sheet SS 19-21/1

British Antarctic Survey, BAS Miscellaneous Series
Antarctic Peninsula and Weddell Sea, 2005, Sheet BAS (Misc) 8, 1:3,000,000 scale
British Antarctic Territory (north of 82° S) with South Georgia and South Sandwich Islands, 1981, Sheet BAS (Misc) 2, 1:3,000,000 scale

U.S. Geological Survey Antarctica Sketch Map Series (1:500,000 scale)
Bryan Coast-Ellsworth Land, 1968
Ellsworth Land (east part)-Palmer Land (south part), 1969
Palmer Land (north part), 1979

Other information sources:

Antarctic Digital Database (ADD) (British Antarctic Survey and others, 1993; ADD Consortium, 2007; see full reference citations in accompanying pamphlet). The Antarctic Digital Database project provides a digital coastline and other cartographic information of Antarctica.

RADARSAT SAR-1 image map mosaic of Antarctica, 1997 (RADARSAT Antarctic Mapping Project (RAMP), Byrd Polar Research Center, The Ohio State University; see full reference citation in accompanying pamphlet).

Vertical and oblique aerial photography, 1947–1992; see table 2 in accompanying pamphlet.

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). The accuracy of topographic features in relation to the graticule and to the satellite observation stations is approximately 1 mm (equals 1 km on the ground).

Image base from the Landsat 4 and 5 TM image mosaic of the Antarctic Peninsula (30-meter pixel), digitally mosaicked and georeferenced by the former Institut für Angewandte Geodäsie (IfAG), now the Bundesamt für Kartographie und Geodäsie (BKG), and augmented by two Landsat 4 TM scenes and one Landsat 7 ETM+ scene. The accuracy of the mosaic was calculated by A.P.R. Cooper (British Antarctic Survey) to be ±150 m.

All geographical names on this map have been approved by the U.S. Advisory Committee on Antarctic Names; this does not necessarily imply their acceptance by all Antarctic Treaty Contracting Parties.

INDEX MAP OF LANDSAT 1, 2, AND 3 MSS IMAGES
FROM THE 1970s, USED FOR FEATURE ANALYSIS

Path/Row	EDC[1] Entity No.	Date
222/112	3222112007835290	18 Dec 78
223/112	2223112007530690	02 Nov 75
233/109	1233109007400690	06 Jan 74
233/109	3233109007903490	03 Feb 79
233/111	1233111007302990	29 Jan 73
233/112	1233112007302990	29 Jan 73
233/113	1233113007302990	29 Jan 73
236/109	2236109007504990	18 Feb 75
236/110	1236110007232690	21 Nov 72
237/112	1237112007332190	17 Nov 73

[1] EROS Data Center, U.S. Geological Survey.

AUTHOR AFFILIATIONS

[1]U.S. Geological Survey, 926A National Center, Reston, VA 20192-0002.
[2]British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.
[3]U.S. Geological Survey, 1300 SE Cardinal Court, Building 10, Suite 100, Vancouver, WA 98683.
[4]U.S. Geological Survey, 384 Woods Hole Road, Woods Hole, MA 02543-1598.
[5]Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER, United Kingdom.
[6]Formerly with British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.
[7]Bundesamt für Kartographie und Geodäsie (formerly Institut für Angewandte Geodäsie), Richard-Strauss-Allee 11, D-60598 Frankfurt am Main, Germany.

COASTAL-CHANGE AND GLACIOLOGICAL MAP OF THE PALMER LAND AREA, ANTARCTICA: 1947–2009

By
Jane G. Ferrigno,[1] Alison J. Cook,[2] Amy M. Mathie,[3] Richard S. Williams, Jr.,[4] Charles Swithinbank,[5] Kevin M. Foley,[1] Adrian J. Fox,[2] Janet W. Thomson,[6] and Jörn Sievers[7]

2009

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