

Maps used in compilation and analysis:

- U.S. Geological Survey Satellite Image Map, Ellsworth Mountains, Antarctica, 1973-74, Experimental Printing, 1:500,000 scale.
- British Antarctic Survey and U.S. Geological Survey Satellite Image Map, Antarctica, 1981, 1:250,000 scale.
- British Antarctic Survey, Antarctica (1981), 1:250,000 scale.
- U.S. Geological Survey Antarctica 1:250,000-scale Topographic Reconnaissance Series, Antarctica, 1987.
- U.S. Geological Survey Antarctica 1:250,000-scale Topographic Reconnaissance Series, Antarctica, 1987.
- Wilson Maxwell, 1989.
- British Antarctic Survey BAS Miscellaneous Series, British Antarctic Territory (South of 62° S) with South Georgia and South Sandwich Islands, 1983, Sheet BAS/MS/2, 3:1,000,000 scale.
- Antarctic Peninsula and Muddell Sea, 2000, Sheet BAS/MS/10, 3:1,000,000 scale.

Other information sources:

- RODMAT SAS-1 Image Map Mosaic of Antarctica (RADARSAT Antarctic Mapping Project (RAMP), Scott Polar Research Centre, The Ohio State University; see full reference citation in accompanying pamphlet).
- Antarctic digital database user's guide and reference manual (British Antarctic Survey and others, 1993; see full reference citation in accompanying pamphlet). This manual accompanies a CD-ROM. The Antarctic Digital Database (ADD) project provides a digital coastline and other cartographic information of Antarctica.

Map projection parameters have been used in accordance with the recommendations of the Working Group on Geodesy and Geophysics, International Geodetic Association (IGAG), 1987. The accuracy of mapographic features in relation to the geoid and to the satellite observation stations is approximately 1 mm (equival 1 km on the ground).

Image base from 1997 RADARSAT Image Mosaic of Antarctica (1:250,000 scale).

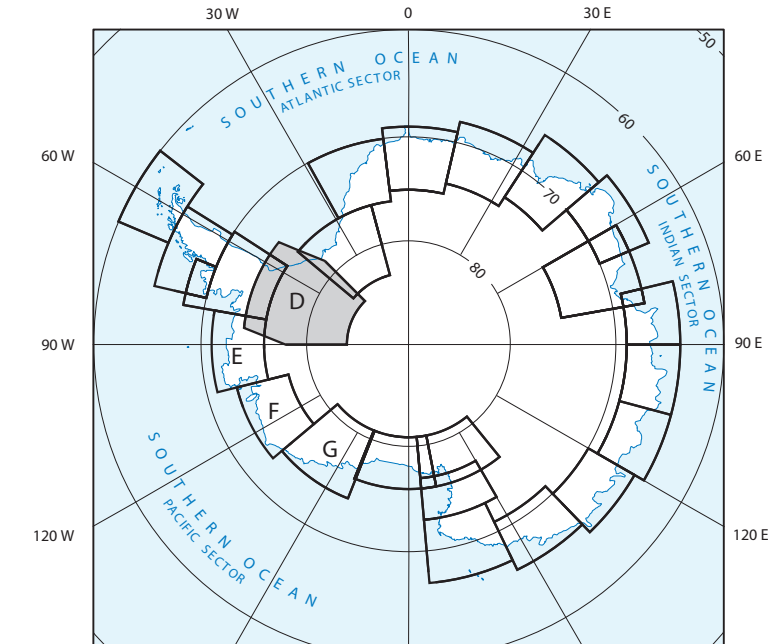
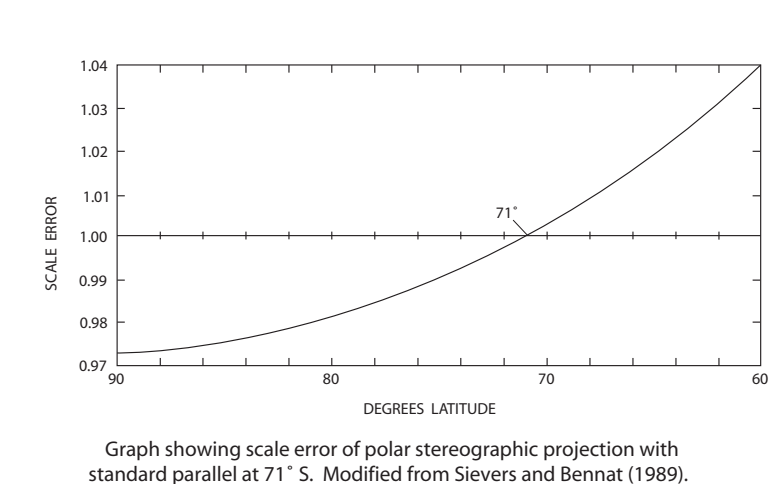
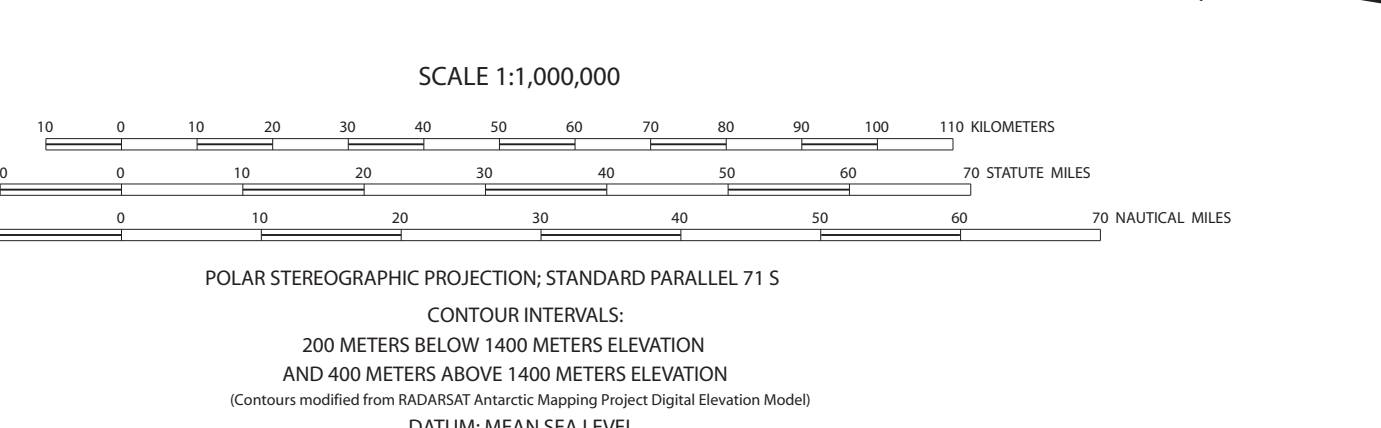
INDEX MAP OF SELECTED LANDSAT 1 AND 2 MSS IMAGES

PROCESSED 150m USED FOR FEATURE ANALYSIS

Date	Image No.	EOS/EO No.	Date
1980-07	242600-0100	1180	11/26/1980
200-11	2346-1348	1221	11/26/1980
200-11	2346-1349	1221	11/26/1980
200-11	2346-1350	1221	11/26/1980
200-11	1779-0483	1221	11/26/1980
200-11	2207-0382	1221	11/26/1980

1980-07-26 10:00 AM
1980-11-26 10:00 AM

- EXPLANATION**
- Ice Rise—Early 2000s MODIS and Landsat imagery; MODIS imagery acquired December 3, 2002.
 - Ice Rise—RADARSAT imagery acquired between September 9 and October 20, 1997.
 - Ice Rise—October 1980 Landsat imagery; date of observation shown. Mostly from the Geological Map of Ellsworth-Ronne Shelves, Antarctica (British Antarctic Survey, 1987).
 - Ice Rise—Early 1970s Landsat imagery; date of observation shown. Mostly from the Geological Map of Ellsworth-Ronne Shelves, Antarctica (British Antarctic Survey, 1987).
 - Ice Rise—Date of observation shown.
 - Grounding line—Date of observation shown. Mostly from Landsat imagery; date of observation shown. Grounding lines dated 1980 are from the Geological Map of Ellsworth-Ronne Shelves, Antarctica (British Antarctic Survey, 1987). Grounding lines dated 1997 were obtained from RADARSAT imagery acquired between September 9 and October 20, 1997. Foundation for Green Grounding Line (Green Grounding Line and others, 1998).
 - Observation and date—Date of observation shown.
 - Ice margin—Where a grounding line and ice shelf meet.
 - Ice toe—Within a grounding line and ice shelf.
 - Flow line.
 - Ridge line on ice.
 - Topographic contour in meters—Modified from RAMP digital elevation model (Bed Polar Research Centre).
 - Ice stream.
 - Narrow outlet or valley glacier or ice stream.
 - Ice velocity contour in meters per year (m/yr)—From Vaughan and Jones (1994).



This map is one of the 32 coastal change and glaciological maps of Antarctica at 1:1,000,000 scale. Review the Sheet area map to the sheet. Maps published to date are indicated by letter and are described in table 2 of the accompanying pamphlet.

INDEX MAP OF SELECTED LANDSAT IMAGES USED FOR FEATURE ANALYSIS

LANDSAT 4 AND 5 MSS AND THEMATIC MAPS FROM EARLY 1980s TO EARLY 1990s AND LANDSAT 7 ETM+ IMAGES FROM EARLY 2000s

Date	Image No.	EOS/EO No.	Date
1981-12	49360-0100	4182	12/04/1981
1982-12	42020-0200	4182	12/04/1982
1983-12	50370-0300	5111	12/04/1983
1984-12	52020-0400	5111	12/04/1984
1985-12	52020-0500	5111	12/04/1985
1986-12	6174-0600	5191	12/04/1986
1987-12	6174-0700	5191	12/04/1987
1988-12	6174-0800	5191	12/04/1988
1989-12	6174-0900	5191	12/04/1989
1990-12	6174-1000	5191	12/04/1990
1991-12	6174-1100	5191	12/04/1991
1992-12	6174-1200	5191	12/04/1992
1993-12	6174-1300	5191	12/04/1993
1994-12	6174-1400	5191	12/04/1994
1995-12	6174-1500	5191	12/04/1995
1996-12	6174-1600	5191	12/04/1996
1997-12	6174-1700	5191	12/04/1997
1998-12	6174-1800	5191	12/04/1998
1999-12	6174-1900	5191	12/04/1999
2000-12	6174-2000	5191	12/04/2000
2001-12	6174-2100	5191	12/04/2001
2002-12	6174-2200	5191	12/04/2002
2003-12	6174-2300	5191	12/04/2003
2004-12	6174-2400	5191	12/04/2004
2005-12	6174-2500	5191	12/04/2005
2006-12	6174-2600	5191	12/04/2006
2007-12	6174-2700	5191	12/04/2007
2008-12	6174-2800	5191	12/04/2008
2009-12	6174-2900	5191	12/04/2009
2010-12	6174-3000	5191	12/04/2010
2011-12	6174-3100	5191	12/04/2011
2012-12	6174-3200	5191	12/04/2012
2013-12	6174-3300	5191	12/04/2013
2014-12	6174-3400	5191	12/04/2014
2015-12	6174-3500	5191	12/04/2015
2016-12	6174-3600	5191	12/04/2016
2017-12	6174-3700	5191	12/04/2017
2018-12	6174-3800	5191	12/04/2018
2019-12	6174-3900	5191	12/04/2019
2020-12	6174-4000	5191	12/04/2020

AUTHOR AFFILIATIONS
U.S. Geological Survey, Reston, VA 20192
Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge
CB2 1ER, United Kingdom
U.S. Geological Survey, 384 Woods Hole Road, Woods Hole, MA 02543-1098

COASTAL-CHANGE AND GLACIOLOGICAL MAP OF THE RONNE ICE SHELF AREA, ANTARCTICA: 1974-2002

By
Jane G. Ferrigno,¹ Kevin M. Foley,¹ Charles Swithbank,² Richard S. Williams, Jr.,¹ and Lina M. Dallide¹

