



# Glacier Inventory of West Greenland, Version 1

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## USER GUIDE

### How to Cite These Data

As a condition of using these data, you must include a citation:

Weidick, A., C. E. Boeggild, and N. T. Knudsen. 1992. *Glacier Inventory of West Greenland, Version 1*. [Indicate subset used]. Boulder, Colorado USA. NSIDC: National Snow and Ice Data Center. <https://doi.org/10.7265/N50Z715N>. [Date Accessed].

FOR QUESTIONS ABOUT THESE DATA, CONTACT [NSIDC@NSIDC.ORG](mailto:NSIDC@NSIDC.ORG)

FOR CURRENT INFORMATION, VISIT <https://nsidc.org/data/G01375>



National Snow and Ice Data Center

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# 1 DETAILED DATA DESCRIPTION

## 1.1 Data Fields

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**Glacier Identification:** The glacier code is based on the division of the Greenland coast into hydrological basins. The continent and administrative unit, typically included in WGMS data base entries, are omitted from all ID numbers as in all cases they are GL 2U (for the administrative unit of Greenland and the continent of North America).

**Latitude and Longitude:** The geographic coordinates of the glacier. The location is defined as a point situated on the central line of movement in the ablation area. For the sectors of outlets of the Greenland ice sheet the coordinate point is placed in the ablation zone close to the margin so that redefinition of the total sector area will not influence the coordinates given.

**Orientation:** The orientation of the ablation area in the down glacier direction.

**Maximum glacier elevation:** The highest elevation of the glacier in decameter above sea level (a.s.l.). Data are taken from topographic maps and should be considered as estimates. For outlets of the Greenland ice sheet the maximum elevation is omitted and 1800 decameters a.s.l. is assumed as an upper limit of the measured glacier area.

**Minimum glacier elevation:** The lowest elevation of the glacier in decameters above sea level. This field is left blank if the glacier terminus is unmeasured because the glacier terminates in the sea.

**Surface area:** The surface area of the glacier in square kilometers. Areas were measured using a high resolution digitizer. For outlet glaciers from the Greenland ice sheet, measured areas are for the marginal areas under 1800 meters a.s.l.

**Morphology code:** A series of six codes describing various morphology characteristics of the glacier. The codes are described in the following tables.

**Digit 1 - Primary classification**

- 0 Uncertain or miscellaneous
- 1 Continental ice sheet
- 2 Ice-field
- 3 Ice cap
- 4 Unused
- 5 Valley glacier
- 6 Mountain glacier
- 7 Glacier and snowfield
- 8 Ice shelf
- 9 Rock glacier

**Digit 2 - Form**

- 0 Uncertain or miscellaneous

- 1 Compound basins
- 2 Compound basin
- 3 Simple basin
- 4 Cirque
- 5 Niche
- 6 Outlet
- 7 Ice apron
- 8 Group
- 9 Remnant

Digit 3 - Frontal characteristic

- 0 normal or miscellaneous
- 1 Piedmont
- 2 Expanded foot
- 3 Lobed
- 4 Calving in sea; considerable calf ice
- 5 Calving in sea ice; grounded
- 6 Calving in lake
- 7 Confluent

Digit 4 - Longitudinal profile

- 0 Uncertain or miscellaneous
- 1 Even, regular
- 2 Hanging
- 3 Cascading
- 4 Ice-fall
- 5 Interrupted

Digit 5 - Major source of nourishment

- 0 unknown
- 1 Snow and/or drift snow
- 2 Avalanche ice and/or snow
- 3 Superimposed ice

Digit 6 - Activity of tongue

- 0 uncertain
- 1 Marked retreat (> 1.5 km)
- 2 Slight retreat (< 1.5 km)
- 3 Stationary
- 4 Slight advance
- 5 Marked advance
- 6 Possible surge
- 7 Known surge
- 8 Oscillating

Map: Reference to maps contained within the [Atlas publication](#) (Weidick, Bogglid, and Knudsen 1992).

## 1.2 Sample Data

1AA01001,60.05N, 44.75W,NW, 99, 74,0000.01,740110,6000-02

1AA01001 - Glacier Identification number

60.05N - Latitude

44.75W - Longitude

NW - Orientation

99 - Maximum glacier elevation

74 - Minimum glacier elevation

00.01 - Surface area

740110 - Morphology code

6000-02 - Map reference

## 1.3 Errors

**Please note:** A user discovered errors in this data set. The tables below describes the errors, their corrections, and the source of the error. Possible error sources include the publication titled "*Glacier Inventory and Atlas of West Greenland*" (Weidick et al. 1992), and the original data file distributed by NSIDC, titled `glaciers.dat`. An updated data file titled `glaciers_08302004.dat`, which includes all corrections, is available via HTTPS:

<https://noaadata.apps.nsidc.org/NOAA/G01375/>.

Table 1. Glacier orientation errors in data

Glacier Identification Number	Glacier Orientation	Corrected Glacier Orientation	Source of Error
1GH03001	N	NE	glaciers.dat
1EA04011	MW	NW	Atlas*

\* Glacier Inventory and Atlas of West Greenland

Table 2. Glacier elevation errors in data

Glacier Identification Number	Maximum and Minimum Glacier Elevations	Corrected Maximum and Minimum Glacier Elevations	Source of Error
1AG10037	195, 200	195, 20	Atlas
1GH03001	E100, 95	100, 95	glaciers.dat
1HB15008	100, 700	100, 70	Atlas
1HD07012	11, 80	110, 80	Atlas
1HD09004	1000, 80	100, 80	Atlas
1HE01006	95, 700	95, 70	Atlas

Table 3. Transposed maximum and minimum elevation errors in data

Glacier Identification Number	Maximum and Minimum Glacier Elevations	Corrected Maximum and Minimum Glacier Elevations	Source of Error
1AB05020	165, 180	180, 165	Atlas
1BK01003	160, 165	165, 160	Atlas
1CH38008	120, 165	165, 120	Atlas
1DG01005	110, 115	115, 110	Atlas

The following records in the Atlas publication appear to contain typographical errors in the latitude and/or the longitude. One user of this data set has suggested the following values as replacements. Please note that NSIDC did not change these values in the data file glaciers\_08302004.dat.

Table 4. Potential errors in glacier latitude and longitude data

Glacier Identification Number	Potential Erroneous Latitude or Longitude	Suggested Value	Source of Error
1AA03003	33.45°W	44.75°W	Atlas
1AA27007	63.04°N	60.06°N	Atlas
1AD02018	55.58°W	44.96°W	Atlas
1CA03014	61.47°N	62.78°N	Atlas
1CH41002	64.12°W	51.10°W	Atlas
1DG29015	53.72°W	53.12°W	Atlas
1HB10017	59.43°N	69.71°N	Atlas

## 1.4 Sharing Your Data with NSIDC

The International Council of Scientific Unions, in Resolution 8 of its 22nd General Assembly, recommended that "...all ICSU members support the fundamental principle of open exchange of data and information for scientific purposes." In the spirit of this resolution, NSIDC/WDC for Glaciology, Boulder encourages users of data distributed online and in other forms by NSIDC/WDC for Glaciology, Boulder to consider contributing their own published data to NSIDC/WDC for Glaciology, Boulder archive.

If you have published data that you wish to archive and make available to the scientific community, please contact [NSIDC User Services](#) to initiate a discussion of the content, form and size of the data set. A list of guidelines for submitting data in electronic form is available.

## 2 REFERENCES AND RELATED PUBLICATIONS

Weidick, A., C. E. Bøggild, and N. T. Knudsen. 1992. Glacier inventory and atlas of west Greenland. Rapp. Grønlands geol. undersøg., 158.

## 3 CONTACTS AND ACKNOWLEDGMENTS

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## 4 DOCUMENT INFORMATION

### 4.1 Publication Date

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1992

### 4.2 Date Last Updated

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