

# Submission of Glacier Fluctuation Data to the World Glacier Monitoring Service

—  
**Observation Periods 2007/08**

—  
**General Guidelines**

## **What is it all about?**

The World Glacier Monitoring Service (WGMS) continuously publishes internationally collected and standardised data on changes in glaciers throughout the world. The compiled data is published at 5-yearly intervals in the 'Fluctuations of Glaciers' (FoG) which include detailed information on the observed glaciers, variations in the position of glacier fronts, mass balance results, changes in area, volume and thickness, as well as addenda from earlier years. Furthermore, the publication includes index measurements and annexed maps as well as information on special events such as cases concerning glacier hazards and dramatic changes. The WGMS call-for-data is sent out one year after the end of the measurement period on the Northern Hemisphere (i.e., in September), which allows the investigators to analyse and publish their own data before it is made readily available to the scientific community and the public. To speed up and facilitate the access to glacier fluctuation information, preliminary mass balance data is published annually on the website of the WGMS and biennially in the 'Glacier Mass Balance Bulletin' (GMBB).

## **General guidelines and scope of the two publications**

In the FoG all glacier observations are published that fall within the five year measurement period (e.g., 2005–2010 for the FoG Vol. X) and are processed according to the data standards of the WGMS, as described below. The bi-annual GMBB reports on glacier mass balance values measured with the direct glaciological method. The bulletin consists of two parts – basic information in which glaciers are included with three or more calculated specific net balances, covering both hydrological years (e.g., 2008 and 2009 for the GMBB No. 11), and a detailed part with information from selected glaciers in various mountain ranges and with long measurement series (at least 6 years of observations). The time period known as the hydrological year is defined by the end of the year, i.e., in the Northern Hemisphere the hydrological year of 2008 starts October 1st, 2007 and ends September 30th, 2008. In the Southern Hemisphere the hydrological year of 2008 starts April 1st, 2007 and ends March 31st, 2008. In each country the data collection is to be organised by the national correspondent of the WGMS according to this '**General Guidelines**' and the '**Notes on the Completion of the Data Sheets**' and using the '**Digital Data Submission Form**'.

## **How to submit the data?**

For the submission of glacier fluctuation data to the WGMS, the **Digital Data Submission Form** is to be used. The excel-based form is organised in worksheets A–F, with corresponding attributes descriptions in the **Notes on the Completion of the Data Sheets** (see links below).

For the observation period 2007/08, as well as addenda from earlier years, the following information is to be submitted:

- Standardised data on glacier fluctuations and corresponding meta-data, including estimates on maximum error of the reported values (cf. data sheets A–E).
- Information on special events, especially concerning glacier hazards and dramatic changes in glaciers (cf. data sheet F SPECIAL EVENT).
- Full contact information on sponsoring agencies and sources of data, as well as of the national correspondent

For a publication of the glacier data in the basic information part of the GMBB No. 11 (2008–2009), the mass balance data (net balance, ELA and AAR values) from direct glaciological measurements (independent of meteorological or hydrological observations) are mandatory. For the publication in the part with detailed information the values of balance as a function of altitude is needed as well as the following additional material:

- Black and white scanned **photograph** (at least 600 dpi, no PDF) showing the entire glacier, referenced by author and date of photograph (more recent and/or better photographs than the already published ones are welcome).
- **Three maps** of around A4 size showing the outlines of the glacier, the scale, the direction to the north and a) topography and observation network, b) net balance distribution for the two observation years.
- **Point mass balance measurements** at stakes and pits that were used to calculate the glacier mass balance (cf. data sheet EEE MASS BALANCE POINT).
- Short **text** commenting on the general characteristics of the glacier and on the reported balance years; the text should include information on glacier extent and size, inter-/extrapolation methods, available geodetic surveys, mean annual air temperature and annual precipitation at ELA, remaining ice thickness, etc.

The last issues of the FoG and GMBB might serve you as an example during the data preparation (for link see below).

- There is already the possibility to submit **annex maps** for the publication with the FoG 2005–2010 (Vol. X). We will finally need 500 copies (printed on paper stronger than normal paper, final folded format of max. 24x16 cm or a bit smaller) with accompanying text (text only, it must be between a half-page and two pages of A5).  
=> A press proof of the map must be sent to and approved by the WGMS before you print and send the 500 copies!!!
- Large collections of overview and repeat photographs of glaciers can be directly submitted to the NSIDC Glacier Photograph Collection: [http://nsidc.org/data/glacier\\_photo/](http://nsidc.org/data/glacier_photo/)

#### **DEADLINES FOR DATA SUBMISSION:**

- Preliminary mass balance value for the period 2007/08: **01 December, 2009**
- Full details on glacier fluctuation data for the period 2007/08 and addenda: **01 February, 2010**

#### **Questions & support**

For any further questions or need for support, the WGMS staff is willing to assist you!

#### **Links**

This General Guidelines:

[http://www.wgms.ch/downloads/WGMS\\_GuidelinesforDataSubmission.pdf](http://www.wgms.ch/downloads/WGMS_GuidelinesforDataSubmission.pdf)

Digital Data Submission Form:

[http://www.wgms.ch/downloads/WGMS\\_DataSubmissionForm.xls](http://www.wgms.ch/downloads/WGMS_DataSubmissionForm.xls)

Notes on the Completion of the Data Sheets:

[http://www.wgms.ch/downloads/WGMS\\_AttributeDescription.pdf](http://www.wgms.ch/downloads/WGMS_AttributeDescription.pdf)

List of National Correspondents of WGMS:

<http://www.wgms.ch/nc.html>

Last issues of the FoG:

<http://www.wgms.ch/fog.html>

Last issues of the GMBB:

<http://www.wgms.ch/gmbb.html>