



## The report of the International Symposium on Hydrology of Glaciers and Ice Sheets, Höfn in Hornafjörður, 21–26 June 2015, *INTERNATIONAL GLACIOLOGICAL SOCIETY*

Symposium on Hydrology of Glaciers and Ice Sheets organized by International Glaciological Society (IGS) welcomed about 120 participants with over 100 presentations (oral&posters). It is well known that the hydrology of glaciers plays a significant role in their dynamics and mass balance, and has consequent importance for oceanography, biology or climate science and this meeting provided a forum to discuss all aspects of glacier and ice sheet hydrology. This symposium was covered all aspects of glacial hydrology, including:

- Glacier catchment hydrology (timing and magnitude of runoff, floods and droughts, influence of climate change, subdaily variations, applications to stakeholders, future water availability)
- Supraglacial and firn hydrology (surface mass balance, meltwater retention in firn, percolation, ice lensing, supraglacial streams and lakes, supraglacial systems on ice shelves and ice tongues, aquatic biological communities, ice/dust interaction, influence on albedo)
- Englacial and subglacial hydrology (crevassing and moulins, influence on thermal structure, basal melting/freezing, englacial and subglacial channels, submarine melting, subglacial lakes, thermodynamics at meltwater–ice interface, biology)
- Basal sliding and ice dynamics (sliding speed, dependence on effective pressure, cavitation, sediment strength, hydrology of ice streams, calving processes)
- Jökulhlaups and hazards (subglacial lakes and outburst floods, marginal lakes, moraine-dammed lakes, timing and magnitude of discharge)
- Erosion and landforms (role in quarrying, deformation and transport of sediments, eskers, drumlins, mega-scale glacial lineations)
- Hydrology of subglacial eruptions (meltwater production and pathways, eruption site water retention, steam and ash, floods, subglacial geothermal areas, porous media hydrology and thermodynamics)
- Instrumentation and methods (remote sensing, field techniques, new technologies, geochemistry)

IGS Symposium was opportunity to present advances in ground-based measurements, remote sensing and modelling to discussions on their interpretation and implications. The intention of the symposium was facilitate exchange of scientific information between

participants, provide an overview of the current state of knowledge of glacier and ice-sheet hydrology and to provide a focus on key areas for future research.

Centre for Polar Studies & University of Silesia in Poland was represented by Elżbieta Majchrowska, who reported on results of 'The importance of extreme events in release of suspended sediment yield from Werenskioldbreen catchment (in Spitsbergen).' She considered how extreme events such as heavy precipitation, especially in the second part of hydrologically active season influence on the sediment transport for the time series since 2007. Finnally, she wondered that can we expect more rainfall type season, because based on longer time data series for Polish Polar Station we observe increasing trend in precipitation, especially in September time. And as consequence we can also expect more fresh water and more sediment supply to the sea.

For more information, visit the IGS website: <u>http://www.iqsoc.org/symposia/2015/iceland/</u> or <u>http://en.vedur.is/conferences/iqs-</u> <u>2015</u>

Elżbieta Majchrowska



## THE IMPORTANCE OF EXTREME EVENTS IN RELEASE OF SUSPENDED YIELD FROM WERENSKIOLDBREEN CATCHMENT (SPITSBERGEN)

