

PREFACE

Annals of Glaciology 55(68) consists of a suite of papers on recent developments in the technical aspects of ice-core drilling and logistics. Submissions to this volume were, besides general topical invitation, particularly invited from participants in the Seventh International Workshop on Ice Drilling Technology, held at the University of Wisconsin, Madison, WI, USA, 9–13 September 2013. Readers will find here continuity of theme covered by previous workshops and related collections of topical papers, from as early as the mid-1970s:

- Ice Core Drilling, 1976. Proceedings of a Symposium, University of Nebraska, Lincoln, 28–30 August 1974. University of Nebraska Press, Lincoln, 189pp.
- Ice Drilling Technology, 1984. Proceedings of the Second International Symposium on Ice Drilling Technology, Calgary, Alberta, Canada, 30–31 August 1982. CRREL Special Report, SR 84-34, 142pp.
- Ice Core Drilling, 1989. Proceedings of the Third International Workshop on Ice Drilling Technology, Grenoble, France, 10–14 October 1988, 204pp.
- Ice Drilling Technology, 1994. Proceedings of the Fourth International Workshop on Ice Drilling Technology, Tokyo, 20–23 April 1993 (ed. Okitsugu Watanabe). Mem. Natl. Inst. Polar Res. Special Issue No. 49, 410pp.
- Ice Drilling Technology, 2002. Proceedings of the Fifth International Workshop on Ice Drilling Technology, 30 October–1 November 2000, Nagaoka University of Technology, Nagaoka (ed. Nobuhiko Azuma and Yoshiyuki Fujii) Mem. Natl. Inst. Polar Res. Special Issue No. 56, 329pp.
- Annals of Glaciology* 47, 2007. Proceedings of the the Sixth International Workshop on Ice Drilling Technology, 17–23 September 2006, US Fish and Wildlife Service National Conservation Training Center in Shepherdstown, West Virginia, 146pp.

After *Annals of Glaciology* 47, this is the second ice-core drilling issue where all papers have been through the International Glaciological Society peer review process. We intend to build a continuous record of both the technological challenges and advancements in the field of ice drilling, and of the histories of the significant drilling campaigns that serve as the rightful companion to the scientific papers derived from those campaigns. The value of the science derived from the ice-core record can hardly be overstated – the evolution of the technology that enables that science to take place is an integral part of the scientific story.

Given the theme of this issue, most of the contributions can be categorized as ‘Instruments and Methods’ papers rather than scientific research papers. Concurrent with doubling the number of participants between the sixth and seventh workshops the 41 topical publications in this issue cover almost twice the extent of *Annals of Glaciology* 47. This reveals a still growing technical community dealing with the implementation of challenging research projects that access the interior or the base of ice sheets and glaciers.

As Chief Editor, I thank the authors for their contributions to this issue and the reviewers, scientific editors and IGS editorial staff for their support. I also wish to acknowledge the US National Science Foundation for support. I hope this issue will be a useful documentation of past ice-core drilling practices, and a valuable resource for scientists and engineers developing new drills and borehole systems. I encourage my colleagues to continue the process we have begun with *Annals of Glaciology* 47 and this issue, in order to encourage better communication and idea exchange, and to foster growth in the ice coring and drilling community.

Frank Wilhelms