

WELCOMING ADDRESS

by

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Madam President of Iceland, Ms Vigdís Finnbogadóttir, President of the International Glaciological Society, Professor H. Röthlisberger, Ladies and Gentlemen.

On behalf of the Icelandic Co-sponsors of the Symposium, viz:

Iceland Glaciological Society
Institute of Meteorology
National Energy Authority
National Power Company
Public Roads Administration
Science Institute, University of Iceland,

I have the pleasure and honour to welcome you all to this Symposium on Glacier Mapping and Surveying. I also wish to express our satisfaction that this Symposium takes place here in Iceland; the first such Symposium to be held here.

Apart from the great polar icefields of Greenland and Antarctica, Iceland is probably the most heavily glaciated country in the world, with about 11% of its area under ice. Ever since the settlement of Iceland, eleven centuries ago, glaciers have had great and important repercussions upon the life of the people living here. Human settlements have had to be abandoned, due to glacier advances. Rivers originating from glaciers have been severe impediments to communications for centuries, when inland transportation was mainly on horseback. Crossing of glacial rivers spreading over sand plains, with constantly changing channels, required very special skills that were developed over generations of farmers, living in their vicinity - skills that are now rapidly disappearing because modern technology has conquered these treacherous rivers.

Glaciers have, therefore, played a more prominent role in the everyday life of Icelanders, especially of those who had them daily before their eyes, or had to cope with the rivers flowing from them, than in the life of most other people. The behaviour of glaciers became a part of everyday experience of these people. Many of them made important observations of glaciers, long before the science of glaciology was born. It is no coincidence that one of the first to explain correctly the mechanism of glacier flow was an Icelandic natural scientist, Sveinn Pálsson, near the end of the eighteenth century.

Although modern technology has now removed most of the obstacles to communications, imposed previously by glacial rivers in Iceland, and mitigated many of their other negative effects, glaciers are nevertheless still important to us, who now live in the country, for various reasons. This, in fact, is witnessed by the number of Icelandic co-sponsors of this Symposium.

For the Iceland Glaciological Society and the Science Institute of the University of Iceland, glaciers, of course, constitute a subject of scientific inquiry in a similar way as for glaciologists everywhere in the world, but with the

added emphasis caused by their prominence here in Iceland. For the Institute of Meteorology, glaciers are important indicators of climate, past and present, and a knowledge of them, therefore, is of paramount importance for the climatology of Iceland and the North Atlantic. For the Public Roads Administration, knowledge of glacier behaviour forms the basis for safe design of bridges over glacial rivers, as well as for the design of structures intended for mitigating the effects upon roads and bridges of glacial phenomena that are not yet conquerable by man, like glacier bursts or jökulhlaups. From the point of view of the National Energy Authority, glaciers constitute important parts in the hydrological systems of Iceland, which it is the duty of this Institution to study, and, through their hydrological implications, glaciers have substantial influence on the hydro-electric energy potential of Iceland, which again is of paramount importance to long-term energy planning in this country, where more than 95% of electricity is generated by hydro. For the National Power Company, which actually designs, builds and operates the Icelandic hydro-electric generating system, glaciers are of importance for similar reasons, with the addition that the effects of the vagaries of glacial rivers on the design of power plants built on them have to be taken fully into account. The same is true of their influence on the operation of a hydro-electric system that is glacier-fed to a relatively larger extent than probably any such system anywhere else in the world.

Thus, the interests of the Icelandic co-sponsors are diverse and varied. What they have in common is that better data on glaciers is important to them all. That is the main reason why they have joined hands to co-sponsor this Symposium.

The title of this Symposium is "Glacier Mapping and Surveying". Originally, glaciology, like many other natural sciences, was essentially a descriptive, rather than a quantitative, science. That is now changing, and the title chosen for this Symposium is in harmony with that trend. It is said that every science becomes mathematical when it approaches perfection. Although the road to perfection is long and thorny, it is important to ascertain from time to time that we are moving in the right direction.

The great Italian pioneer in science, Galileo Galilei, coined a phrase, and, in fact, established a philosophy of science that has had profound effect on the history of scientific inquiry since his days. "Measure what is measurable and make measurable what is not so now". I have no better wish for this Symposium than that its deliberations shall be permeated by this spirit of Galileo Galilei.

I thank you for your attention, Ladies and Gentlemen.