

GLACIOLOGICAL DATA

PERMAFROST BIBLIOGRAPHY UPDATE 1988-1992

VI INTERNATIONAL CONFERENCE ON PERMAFROST



BEIJING 1993

**World Data Center A
for
Glaciology
(Snow and Ice)**



WDC operated for:
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GLACIOLOGICAL **DATA**

REPORT GD-26

PERMAFROST BIBLIOGRAPHY UPDATE 1988-1992

Edited by
Ann M. Brennan

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[SNOW AND ICE]**

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May 1993

DESCRIPTION OF THE WORLD DATA CENTER SYSTEM¹

The World Data Centers (WDCs) were established in 1957 to provide archives for the observational data resulting from the International Geophysical Year (IGY). In 1958 the WDCs were invoked to deal with the data resulting from the International Geophysical Cooperation 1959, the one-year extension of the IGY. In 1960, the International Council of Scientific Unions (ICSU) Comite International de Geophysique (CIG) invited the scientific community to continue to send to the WDCs similar kinds of data from observations in 1960 and following years, and undertook to provide a revised *Guide to International Data Exchange* for that purpose. In parallel the CIG inquired of the IGY WDCs whether they were willing to treat the post-IGY data; with few exceptions, the WDCs agreed to do so. Thus the WDCs have been serving the scientific community continuously since the IGY, and many of them archive data for earlier periods.

In November 1987 the International Council of Scientific Unions (ICSU) Panel on World Data Centers prepared a new version of the *Guide to International Data Exchange*, originally published in 1957, and revised in 1963, 1973 and 1979. The new publication, *Guide to the World Data Center System, Part 1, The World Data Centers (General Principles, Locations and Services)*, was issued by the Secretariat of the ICSU Panel on World Data Centers. This new version of the *Guide* contains descriptions of each of the twenty-seven currently operating disciplinary centers, with address, telephone, telex, and contact persons listed. The reader is referred to the new *Guide* for descriptions of the responsibilities of the WDCs, the exchange of data between them, contribution of data to WDCs, and the dissemination of data by them. The WDCs for Glaciology are listed below.

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Foreword

The bibliography in this Data Report covers the topics of permafrost, ground ice, frozen soils and geocryology from their scientific, technical and applied aspects. It extends that published as *Glaciological Data, Report GD-21* in 1988, providing a total of over 3,000 references published between 1988 and 1992.

The bibliography has been prepared for publication to coincide with the Sixth International Conference on Permafrost to be held in Beijing, China, in July 1993. As a follow up to the Workshop held at the Fifth International Conference on Permafrost in Trondheim, Norway, 1988, a second workshop on permafrost data and information will be held during the Beijing Conference under the auspices of the International Permafrost Association Working Group on Permafrost Data and Information. It is anticipated that the workshop will help foster awareness of the need to develop inventories of data sets and to accelerate the development of archives of such data. The submission of information on permafrost data to the World Data Centers is encouraged and future issues of *Glaciological Data* will report on progress in this area.

The bibliography was compiled by Ann Brennan of the WDC staff with support from Carol Pedigo. We thank Dr. Yuriy K. Vasil'chuk, Theoretical Problems Department of the Russian Academy of Sciences, Moscow, for his assistance in identifying Russian citations for inclusion in the bibliography, the Library of Congress for the Cold Regions Bibliography which provides approximately half of the entries in this publication and Dr. Jerry Brown for his encouragement and suggestions. We are particularly grateful to the U.S. Army Cold Regions Research and Engineering Laboratory (CRREL) for providing the funds to support printing of this publication.

Roger G. Barry
Director
National Snow and Ice Data Center
WDC-A for Glaciology

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Permafrost Bibliography Update 1988-1992

Introduction

This bibliography supplements the two published previously in the *Glaciological Data* series, *GD-14*, 1978-1982 (approximately 4000 citations), and *GD-21*, 1983-1988 (3300 citations). The over 3000 entries in this volume cover the range of permafrost-related literature published from 1988 through 1992.

The bibliography is presented in two sections, a categorized subject listing and an author index. The subject categories used are from the Cold Regions Bibliography Project Thesaurus. The categories are assigned by the editor after a review of the complete record including the keywords used by the original indexer. We feel that this method is most useful to the researcher in a printed format. An index to the categories is printed on pages 3 and 4.

We have attempted to be comprehensive by searching a variety of data sources and using broad subject categories. The primary resource for permafrost-related literature is the **Arctic and Antarctic Regions** CD-ROM produced by the NISC Corporation. It contains data bases produced by several of the important polar and cold regions research centers, including the Cold Regions Research and Engineering Laboratory and the World Data Center A for Glaciology (U.S.); Scott Polar Research Institute (U.K.); Arctic Institute of North America, the Canadian Circumpolar Institute, and the Center for Cold Ocean Resources Engineering (Canada). Other sources searched on line or on CD-ROM are:

- Compendex (Engineering Index)
- Dissertation Abstracts
- Geoarchive
- Georef (Bibliography of Geology)
- INSPEC
- Meteorological and Geostrophysical Abstracts
- NTIS (U.S. National Technical Information Service)

Because we do not have all of the original material in hand, we cannot be certain of the completeness of each citation. However, every effort has been made to ensure accuracy.

We would appreciate your comments on the bibliography - on references we have not included, sources not searched, or subject areas which were not adequately covered. We plan to keep the "Permafrost Bibliography" up-to-date and your suggestions are welcome.

Ann M. Brennan
Editor

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