

INTERNATIONAL PERMAFROST ASSOCIATION

Newsletter No. 3 December 1987

This is the third Newsletter of the International Permafrost Association (IPA). Items for inclusion in the next Newsletter are welcomed - just send them to the Secretary General.

EXECUTIVE COMMITTEE AND COUNCIL MEETINGS

The Executive Committee and the full Council met in early August in Ottawa, Canada. The draft minutes and the report of the Ad Hoc Committee on Commissions/Working Groups were sent to all member countries on 21 October 1987. At the meeting of Council, representatives of member countries in attendance presented oral and/or written reports on IPA activities in their respective countries. Some of the reports are given below in this Newsletter and others will be included in Newsletter No. 4.

REPORTS FROM MEMBER COUNTRIES

ARGENTINA

Committee for the International Permafrost Association

Arturo E. Corte (president)	Dario Trombotto
Hugo Fournier (Vice-president)	Cecilia Regairaz
Manual Mamani	Ana Lia Ahumada
Enrique Buk	Santiago Grosso
M. Maidana	

Adhering National Body

Consejo Nacional de Investigaciones Cientificas y Iécnicas (CONICET)
Avda Rivadavia 1917
1010 Buenos Aires Argentina

Organization

The Argentina members for the IPA belong to Universities and to the National Research Council (Conicet). The Argentina IPA members are also members of the Latin American sub-commission on the Significance of Periglacial Phenomena or the Argentina Periglacial Research Group. They hold meetings each year and their results are published in ACTAS GEOCRIOGENICAS. Three Actas have been published. The next meeting will be held in April 1988 in Puerto Madryn, Patagonia, on the subject: Carbonate precipitation under cryogenic conditions. Actas will accept papers in Spanish but papers in English are also welcomed with the idea of making the journal an international media.

Research

1-Permafrost geophysics; active layer, permafrost depth and the subpermafrost aquifer were determined by geoelectrical and audiomagnetotelluric soundings over debris covered glaciers (rock glaciers) by Fournier, Corte, Mamani, and Borzotta.

- 2-Active layer in rock glaciers and debris covered glaciers and cryogenic debris were analysed in relation to heavy mineral concentration at the bottom of the active layer (Ahumada) Ph.D. Thesis University of Tucuman.
- 3-Hydrological aspects of debris covered glaciers and rock glaciers (E. Buk and Luis Lenzano).
- 4-Central Andes permafrost distribution, lat 21-35, is analysed with the main processes which are related to: segregation ice (pingo or palsa), debris covered glaciers and rock glaciers.
- 5-Soil genesis in the slopes of the Cordillera Frontal El Plata (C. Regairaz).
- 6-A M.A. Thesis (Rio IV University) on the glacial and Periglacial of the Torrecillas and Las Lenan by Satiago Grosso.
- 7-A Ph.D. Thesis for the University of Salta on the Glacial and Periglacial of the Sierra Santa, Victoria by Felipe Rivelli.

International Cooperation

- 1-Heidelberg University: Ph.D. Thesis by Dario Trmbotto on the Periglacial and permafrost of Langunita del Plata; This is "Sandwich" exchange Dr. D. Barsch and Dr. Corte.
- 2-Heidelberg University: Ph.D. Thesis by Hans Happold on the balance of a debris-covered glacier, Horcones Aconcagua, Dr. Barsch and Dr. Corte Agreement.
- 3-University of Nebraska, Lincoln, Neb. Dr. William Wayne has been a visiting researcher in an agreement with NSF and CONICET.
- 4-Dietrich Barsch Visiting researcher
- 5-With Japan Low Temperature Science, Hokkaido University, Sapporo, Japan and CONICET agreement for research on permafrost on Marambio (Seymour) Island. Japan: Fukuda, Nogami, Omoto, and Koizumi. From Argentina: Corte, Buk, and Strellin.
- 6-Dra Thea Vogt (Strasbourg University) France lectured in advance courses on carbonate precipitation under cryogenic conditions.

The Andes Chain from the Caribbean Sea 10 NL. sea to 55 SL. offers a unique laboratory for the study of the cold geosphere and biosphere, and for international cooperation.

The Argentine Committee for IPA will appreciate contacts with researchers on geochemical aspects in cold regions.

Report by Dr. A.E. Corte

CANADA

Dr. H.M. French reported on permafrost activities in Canada. Inasmuch as a full report was given in Newsletter No. 2, details are not reported here. Dr. French raised the possibility of Canada hosting the VII International Conference on Permafrost in 1998.

CHINA

1. The Chinese Society of Glaciology and Geocryology (CSGG)

The CSGG is an adhering body to IPA. It has 16 group-members, 643

individual members from 180 institutions and agencies all over the country.

The third council of CSGG (1987-1990) has been formed. The officers of CSGG are:

President:	Shi Yafeng (LIGG)
Vice-Presidents:	Zhou Youwu, Xie Zichu (LIGG) Xu Shaoxin (Heilongjiang Provincial Research Institute of Water Conservancy) Wang Zhugui (Northwest Institute of Chinese Railway, Academy of Sciences)
Secretary-general:	Cheng Guodong (LIGG)
Vice-Secretary General	He Xing (LIGG)

2. Proposed Future Activities

The enlarged meeting of standing council members was held in Lanzhou on March 28, 1987. Some future activities have been decided:

- a) The first meeting of council members CSGG will be held in Lanzhou on Nov. 2, 1987.
- b) The 4th National Conference on Glaciology and Geocryology and the Celebration of the 30th Anniversary of Glacier and Permafrost Studies in China will take place in Lanzhou on Oct. 5, 1988.
- c) The Symposium on Quaternary Glaciation will be held in 1989.
- d) The new Editorial Board of the Journal of Glaciology and Geocryology has been approved by the meeting. Shi Yafeng is the consulting editor, Li Jijun from Lanzhou University is the chief editor, and the deputy chief editors are Huang Maohuan, Cheng Guodong and He Xing.

3. V. International Conference on Permafrost, 1988.

A substantial Chinese participation in the V International Conference on Permafrost is anticipated. At the request of the Norwegian Organizing Committee, a Chinese Review Committee has been established under the auspices of the CSGG. 46 papers have been selected. The CSGG looks forward to active participation in the VICOP, but we still have financial problems.

4. VI International Conference on Permafrost, 1993.

It is formally approved by the China Association for Science and Technology that the VI International Conference on Permafrost will be held in Beijing, China in July, 1993. Field trips are to the Northeast China, the Tian Shan Mountains and the Qinghai-Tibetan Plateau.

Report by Professor Cheng Guodong on items 1,2,3,4.

5. A brief introduction to the Chinese Society of Glaciology and Geocryology.

The Chinese Society of Glaciology and Geocryology (CSGG) was established on March 21, 1980. Its secretariat office is set up in Lanzhou City,

China, under the auspices of the Lanzhou Institute of Glaciology and Geocryology, Academia Sinica.

The present and founding president of CSGG is Professor Shi Yafeng, the founder and opener of Glaciology in China.

Now, the CSGG has 16 group-members, 643 individual members, including 48 student members, from 180 institutions and agencies all over the country. Besides, it has 30 foreign members, including 5 honorary and 25 corresponding ones from the U.S.A., Japan, Canada and Britain.

Since its establishment, the CSGG has held 7 scientific conferences, of which there were three on permafrost, the first one was held on Nov. 27 to Dec. 3, 1978, Lanzhou; the second, Oct. 4 to 13, 1981, Lanzhou; and the third, Aug. 19 to 24, Harbin. Proceedings were published after every conference. The Journal of Glaciology and Geocryology is edited by the CSGG together with the Lanzhou Institute of Glaciology and Geocryology, Academia Sinica. Four issues are published each year. Up to now, the journal has published 8 volumes and 34 issues. Since 1985, the CSGG has set up an Excellence Award in Ice and Permafrost Studies to encourage outstanding glaciologists and geocryologists. In 1986, 15 people obtained such an award.

The CSGG is an adhering body of the International Permafrost Association, and is widely connected with related organizations all over the world. It liaises with its adhering bodies for coordinating their activities in the international scientific exchange on glaciology and geocryology. The CSGG hopes to help the IPA in holding the VI International Conference 1993.

Report by He Xing and Qiu Guoqing on item 5.

6. Tianshan Glaciological Station

Set up in 1959 and located at the north flank of mount Kara'uchen in Tianshan mountains and the upper courses of Urumqi River, the Tianshan Glaciological Station of Lanzhou Institute of Glaciology and Geocryology, Academia Sinica, is a field base for comprehensive alpine scientific observations, experiments and research centred around glaciers, including mainly glaciology, glacial hydrology and climatology, ice-snow physics, cold region hydrology, glacial geology and geomorphology, cryopedology, mountain ecology, environmental science, alpine plant and soil studies. The station has a research basin, 29.6 km² in area with a 27% glacier cover and a minimum altitude of 3408 m, maximum 4436 m. Research is focused on the regularity of formation, development and variations of the continental glaciers in China, the formation, transformation and utilization of mountain water resources, as well as the interrelations between cryosphere and environment. The main task is to furnish data from the positioning and perennial observations for the scientific research on the glacierized areas, to offer a place for research and manufacture of advanced instruments and equipment for alpine field observations, continuously to improve the existing observation system, and to organize research programs with higher scientific level. The station is opened domestically and abroad, encourages scientific cooperation and exchange, invites and coordinates scientists to carry out research programs on special subjects, and

receives undergraduate and graduate students to work for their thesis programs.

Report by Kang Ersi in item 6.

FINLAND

Report of activities in Finland on permafrost studies:

A frost studies symposium was organized in March 1986. Some 12 papers were presented. Some 60 people participated.

The "Arctic village" experimental building project in Kilpisjarvi (c.69°N) is testing some new ideas in construction.

An outdoor experimental study of artificial freezing of ground is being conducted in Oulu (65°N) by the State Technical Research Centre (VTT) and Oulu University.

A proposal to enlarge the frost measuring network and coordinate the recording among several authorities has been made. Data banks of recordings are under planning.

~~New permafrost localities have been found by geoelectrical soundings by~~ L. King and M. Seppälä. The report is ready to be published.

We will be involved in the V International Conference on Permafrost in plans for a joint excursion in Norway, Sweden and Finland.

Report by Dr. Matti Seppälä.

JAPAN

Studies on underground massive ice in the Mackenzie Delta area in August of 1986 and March of 1987 (Chief: Dr. K. Fujino, Institute of Low Temperature Science)

- . Studies on periglacial phenomena around Argentina's Antarctic base camp November-December of 1987 (Chief: Dr. M. Fukuda, Institute of Low Temperature Science, Cooperation with Dr. A. Corte)
- . Alpine permafrost in the central mountains of Hokkaido, Japan in the summer of 1987 (Chief: Dr. M. Fukuda)
- . Several people from Japan will attend the Permafrost Conference at Normay in August 1988.

The Institute of Low Temperature Science (Japan)

The Institute is composed of 12 sections: Physics, Applied Physics, Meteorology, Oceanography, Snow damage, Frost heaving, Snow melt, Solid precipitation physics, Zoology, Physiology, Biochemistry, Frost injury in plants. The main facilities are located at North 19, West 8, Sapporo, Hokkaido. Other facilities are: the Sea Ice Research Laboratory serving as a branch laboratory (in Monbetsu along the Okhotsk Sea coast) and three field observatories for avalanche studies (in Toikanbetsu), frost heaving (in Tomakomai), and snow melt (in Moshiri). The Institute is staffed with almost 90 members made up of 50 scientists and the remainder offering technical and administrative support.

The Japanese Society of Snow of Ice

The society has approximately 820 regular members, 130 associate members and 180 group members. Internal research groups are organized within the society: solid state studies of snow and ice, drifting snow, avalanches, urban snow disasters, frozen ground and glacial data center. The annual science meeting which is held in October every year is divided into 17 categories as follows: Physics of ice, Frozen ground and frost heaving, Lake and sea ice, Accretion of snow and ice, avalanches and snow on slopes, mechanical properties of deposited snow, melting of snow, snow on roofs, snow removal and disposal, snow patches, glaciers and ice sheets, snow and transportation, metamorphism and distribution of snow, falling snow phenomena, utilization of snow, methods of measuring snow, snow crystals and drifting snow.

Report by Dr. S. Kinoshita.

NETHERLANDS

1. State Geological Survey
(modest) participation in Antarctica Programme of the Fed. Rep. of Germany, subject sediment analysis of shelf deposits and glacio-tectonic studies.
2. University of Amsterdam, Physical Geography Laboratory.
Comparative glacio-tectonic studies in northwestern Europe, the Swiss Alps and Spitsbergen.
3. University of Utrecht, Geographical Institute.
Comparative fluvio- and niveo-eolian studies in northwestern Europe, northwestern Alaska and Greenland.
4. Free University in Amsterdam, Institute of Earth Sciences.
Studies of inactive, Pleistocene periglacial phenomena in northwestern Europe.

Report by Professor Dr. Edward A. Koster.

NORWAY

1. Permafrost - Arctic Technology

University of Oslo, Department of Geography
Several students are working on permafrost problems. Actively mapping at Svalbard.

Norwegian Polar Research Institute
Main responsibility for research at Svalbard. Cooperation with national and international institutions and researchers.

University of Trondheim
Offers an introduction course to polar studies. (Several short courses.)

Norwegian Institute of Technology
More emphasis on arctic technology in education.
SINTEF (Research Organization at the Norwegian Institute of Technology)

Cooperative Arctic Research Programme with ESSO (ESARC) started.

Norwegian Geotechnical Institute

Actively engaged in permafrost research at Svalbard (sponsors NTNF, Statoil). Mapping, sampling, permafrost station, computer programmes, shore line instrumentation, ice forces, buildings, laboratory.

National Research Council (NTNF)

Committee on Permafrost

Responsible for organization of VICOP

Information (Frost i Jord)

Adhering body for IPA

2. Meetings - symposiums etc.,

IGU Commission, The Significance of Periglacial Phenomena, Nordic Group:
Field Symposium on Frost Phenomena, Svalbard July-August 1987.

Norwegian Institute of Technology

12-hour symposium on Svalbard. Trondheim with overnight flight to Svalbard.

SINTEF (Research Organization, Trondheim)

One week symposium on arctic technology on Svalbard. July 1987.

University of Trondheim

Three week symposium at Svalbard on Arctic Science and Technology.

July-August 1987.

Narvik Engineering College

Symposium on applied ice mechanics. September 8-9, 1987.

Report by Dr. K. Flaate.

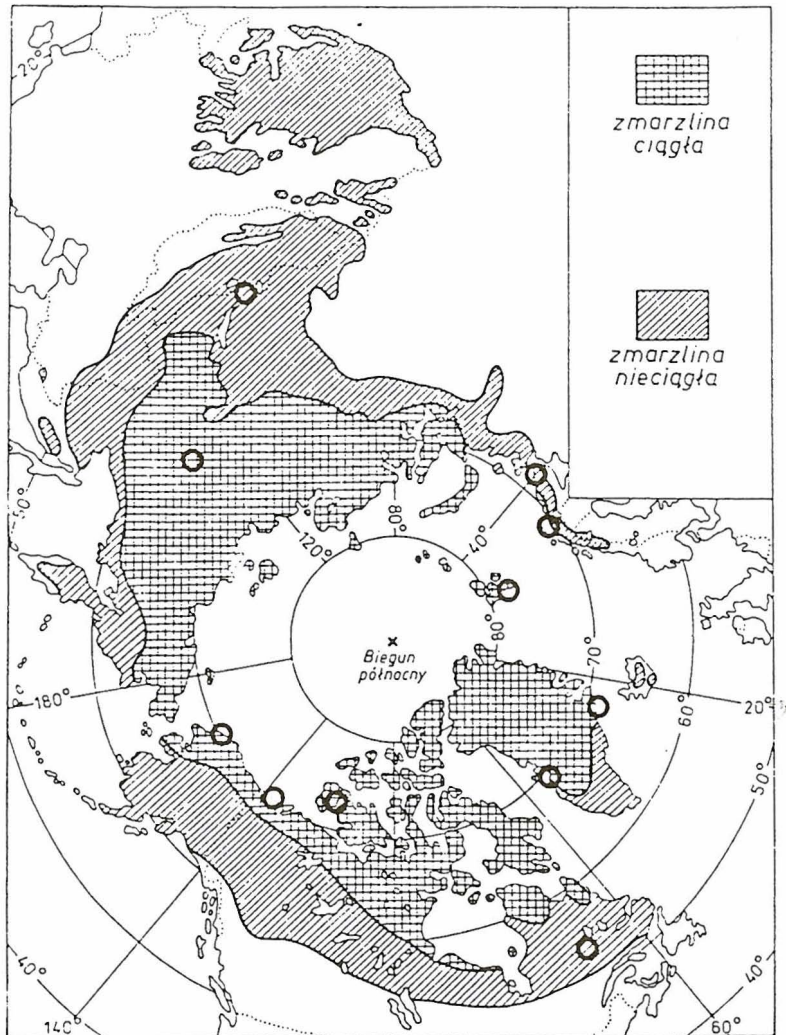
POLAND

Studies on Permafrost and related phenomena conducted by Polish groups

The investigations are carried out in two directions - studies on contemporary permafrost in the Arctic and studies on the relief features and fossil permafrost structure of Polish territory. The latter studies were begun as early as 1909 by Walery Lozinski and are known as the periglacial problems of the Pleistocene in Europe. It is an interesting fact that the Pleistocene periglacial problems became a stimulus to organizing Polish arctic expeditions in the interwar period to Greenland/1937 and to Spitsbergen/1934, 1938/, the aim being to find in those areas contemporary forms of the Pleistocene periglacial relief of the Polish territory. When searching for the sources of the interest taken by Polish researchers in permafrost problems, mention should also be made of the significant contributions of Poles to studies on the permafrost of Siberia in the 19th century. Those investigations were chiefly conducted by Polish political exiles, such as Leonard Jaczewski, who was the author of the first map of "permanently frozen ground" in Siberia in 1889

Our investigations have mostly been carried out during expeditions to various

arctic and subarctic regions/see map/ as well as at our permanent stations in Spitsbergen/Hornsund, Bellsund, Kaffroyra/and on King George Island/South Shetland, Antarctica/. In the 70's we carried out detailed stationary studies on the extremely continental type of permafrost of Mongolia.



The technical means of our investigations are limited, e.g. we are unable to perform deep structure drillings. This is why we have concentrated on the permafrost surface layers, i.e. chiefly on the active layer of permafrost.

The research subjects/projects/ of our polar stations at Hornsund, Bellsund on Spitsbergen are:

The freezing and thawing process of the soil with reference to the climatic conditions, temperature and pressure variations in the ground.

Cryostatic strain, whole-year tensometric measurements.
Ground ice of the permafrost, hydrolaccoliths and ice veins/wedges/.
Variability of the permafrost active layer in dependence on local
hypso-metric, morphological and hydrological conditions. Permafrost and
snow cover.
Vertical and horizontal soil movement resulting from freezing. The
mechanism of frost heave.
Frost creep on slopes, long term measurements at Hornsund. Rock glacier
movements. Devices for measuring these processes have also been
installed at the Stockholm University station at Tarfala, Konekajse.
Debris slope, taluses - continuous measurements of debris and block
movements on Spitsbergen.
Eolian processes in periglacial conditions. Specially designed
defla-meters have been installed at Hornsund.
Desiccation processes in the tundra - desiccation fissures - measured at
Hornsund.
Geomorphological and hydrological mapping of permafrost areas.

Report by Professor Dr. Alfred Jahn.

SWEDEN

In northern Sweden (Abisko Mountains) it is mainly the geomorphological
aspects of permafrost that are being studied such as: "permafrost mounds",
mounds presumed to be pingos and presumed relics or collapsed pingos. These
features have been drilled and excavated (Akerman and Malmstrom, University
of Lund; Lagerback and Rodhe, Swedish Geological Survey). Ground temperature
measurements are carried out to study the altitudinal distribution of
permafrost in the northern parts of Sweden (P.P. Jeckel, University of
Geissen, West Germany). In connection with the recently completed
construction of a road between Sweden and Norway from Kiruna to Narvik,
temperature measurements are carried out where the road crosses permafrost
areas with palsa mires. In southern Sweden, relic permafrost structures have
been studied in excavations made for a gas pipeline (H. Svensson, University
of Copenhagen, Denmark). Relic surface features indicating former permafrost
features in south Sweden are being mapped and studied by several workers (H.
Svensson, University of Copenhagen and S. Johnsson, University of Lund).

Report by Dr. Rolf Nyberg.

SWITZERLAND

In the spring of 1986, the "Swiss Coordinating Group on Permafrost" was
established by the Swiss Academy of Sciences. It is planned to function
until about 1990 without formal statutes, official positions, or external
funding. During this first period, the development of the International
Association as well as of the corresponding interest in Switzerland are being
observed and a suitable continuation of the activity after 1990 shall be
prepared. Contact is guaranteed with comparable groups and commissions on
Quaternary geology, geomorphology, polar research and glacier observations
Administrative work is being carried out by W. Haeberli, VAW/ETH Zurich.

The group is now composed of about 25 natural scientists and engineers from
various institutes in the French and German speaking part of Switzerland.

The main fields of interest are:-

- high mountain permafrost,
- Ice Age permafrost conditions,
- artificial ground freezing.

The group tries to coordinate scientific and practical work in Switzerland, to intensify contacts between specialists within the country as well as with the international permafrost community, and to improve the flux of information about permafrost. Close collaboration with other Alpine countries is also planned.

Members of the group meet annually. The first meeting on January 25, 1985, in Zürich was aimed at the start of activities. **Talks were given on:**

- engineering in frozen ground (Huder, Keusen),
- prospecting methods in Alpine permafrost (Fisch, Haeberli, Pika),
- traces of Ice Age permafrost (Maisch, Schindler, Schluchter),
- energy balance in Arctic permafrost (Ohmura)

The second meeting was also held in Zürich (June 6, 1986), in combination with the annual meeting of the Swiss Society on Geomorphology. The following topics were covered during the permafrost meeting:

- permafrost and periglacial geomorphology (Tenthorey, Campiche),
- ski runs on Alpine permafrost (Bucher/Germany),
- permafrost in Scandinavia (King/Germany),
- artificial ground freezing (Huder).

The meeting was followed by an excursion to the construction site for the undercrossing of the Limmat river in artificially frozen gravel near the train station in the centre of Zürich. The third meeting (June 11/12, 1987) was devoted to a visit of the rock glacier core drilling site at Murtèl/Corvatsch. During the formal meeting in Silvaplana/Engadin, talks were given on:

- mapping of Alpine permafrost (Keller),
- aerophotogrammetrical monitoring of rock glacier permafrost (Schmid),
- rock glacier core drilling (Barsch/Germany, Haeberli, Vonder Muhl).

No meeting is planned for 1988, the year of the Fifth International Permafrost Conference. Between 1989 and 1991 however, an international workshop on Alpine permafrost with participation of colleagues from various countries is hoped to receive support from the Swiss Academy of Sciences and governmental organisations.

Report by Dr. Wilfried Haeberli.

UNITED STATES

Within the U.S. National Research Council there are two committees responsible for permafrost activities; the U.S. Committee for the International Permafrost Association (USC/IPA) of the Board on Earth Sciences (BES) and the Permafrost Committee of the Polar Research Board (PRB). **The**

USC/IPA is responsible for coordination with the IPA and the Permafrost Committee coordinates activities within the United States

On behalf of the IPA, the USC/IPA is coordinating the preparation of the second 5-year Bibliography on Permafrost for the Period 1983-1987. A special Workshop on Permafrost Data and Information is being organized by the World Data Center A (Boulder, Colorado), which will be held in Trondheim immediately before the August 2-5, 1988, Fifth International Conference on Permafrost (VICOP).

Numerous permafrost and related projects are conducted by government agencies, universities, and industry. The results will be reported in the approximately 75 U.S. papers presented at VICOP. Briefly, permafrost-climate investigations are conducted by the U.S. Geological Survey in deep bore hole measurements of temperature in Northern Alaska and by the University of Alaska in shallow bore holes.

Subsea permafrost and coastal investigations continue in northern Alaska. Industry is undertaking site investigations in northwestern Alaska in preparation for a major mining project.

A joint-ground temperature measurement program with the Chinese Ministry of Railways was begun on the Tibet Plateau and in Fairbanks, Alaska. Temperature cables from each country were installed at each of the two sites and weekly measurements to 50 feet are being obtained for comparisons on methods.

Professional organizations have several major activities underway. The Technical Council of the Cold Regions Engineering of the American Society of Civil Engineers is publishing a new journal Cold Regionals Engineering and is planning an international conference on Cold Regions Transportation for 1989, in Minneapolis, Minnesota.

The American Society of Testing and Materials has formed a new Subcommittee (D 18-19), Frozen Soil and Rock to develop standards on pile load testing, frost susceptibility and creep testing. C.W. Lovell is the Chairman.

The American Society of Mechanical Engineers will co-host the 7th Offshore Mechanics and Arctic Engineering Conference in Houston, Texas, February 7-12, 1988.

CONSTITUTION

Note: Any adhering body that wishes to make an amendment to the constitution should submit the amendment to the Secretary-General no later than 31 December 1987 if at all possible (see Draft Minutes, August Council Meeting, footnote p. 3). See also Report of Nominating Committee p. 4.

ACTIVITIES OF WDC-A FOR GLACIOLOGY

World Data Center-A for Glaciology [Snow and Ice] (WDC), located at the University of Colorado, Boulder, is one of three international data centers serving glaciology. The other two are WDC-B in Moscow, USSR, and WDC-C in Cambridge, England. The centers, established during the International

Geophysical Year, serve to facilitate the international exchange of data on all forms of snow and ice, including avalanches, freshwater ice, glaciers, paleoglaciology, sea ice and snow cover; ground ice and permafrost are also included, except at Center-B. Located with WDC is the National Snow and Ice Data Center (NSIDC), established in 1982. This center functions as a national (U.S.) information and referral center for the snow and ice community. Operating under the International Council of Scientific Union guidelines, WDCs are to "collect, store, and disseminate information and data on Glaciology." WDC/NSIDC maintains an active ongoing program to acquire published material in all areas of snow and ice research; it serves as an archive for approximately 50 digital and analog data sets on sea ice, snow cover and glaciers, and is the repository for the U.S. Air Force Defense Meteorological Satellite Program (DMSP) imagery. A detailed description of each data set is available to researchers.

CITATION, the in-house online catalog, offers easy access to the bibliographic collection. Online searches are performed for researchers on request.

~~Two series, New Accessions List and Glaciological Data are published by WDC/NSIDC. New Accessions List is a quarterly list of documents, categorized by subject, received and catalogued during a given period. Currently, this publication is distributed without charge to about 350 scientists, research institutions and libraries worldwide~~

Glaciological Data (GD) is the principal publication of WDC/NSIDC. Issues focus on a special topic and include specialized bibliographies, inventories, and survey reports relating to data sets, data collection and storage, methodology, and terminology in glaciology. **One issue of particular interest to the permafrost community is GD-14, Permafrost: A Bibliography, 1978-1982.** This bibliography was compiled in conjunction with the Fourth International Conference on Permafrost held in Fairbanks, Alaska in July 1983. We are planning to continue this effort for the Fifth Conference in Trondheim, August 1988, when the next five-year cumulation, 1983-1987, will be prepared and distributed to conference participants. Also at the Trondheim meeting, WDC/NSIDC is planning to conduct a workshop on permafrost data archiving, management, and distribution.

For further information about any aspects of WDC/NSIDC services, please contact R.G. Barry, Director, WDC/NSIDC, Campus Box 449, University of Colorado, Boulder, CO 80309 USA.

Report by Dr. R.G. Barry.

ARCTIC AND ALPINE RESEARCH

Arctic and Alpine Research is an interdisciplinary journal that publishes original research papers, review papers, and newsworthy items dealing with any aspect of present arctic/subalpine environments and related paleoenvironments, including permafrost studies. **Symposia proceedings and thematic issues are occasionally published.** Antarctic/subantarctic research is also included. Arctic and Alpine Research, now in its nineteenth year, is published by the Institute of Arctic and Alpine Research (INSTAAR), University of Colorado. The Editor, Patrick J. Webber, and the Managing

Editor, Kathleen A. Salzberg, are advised by an on-campus Publications Committee and an international Editorial Advisory Board. Distribution of the journal is world-wide, reaching subscribers in 28 countries; the authorship is also international, a typical issue containing papers by authors from six or seven countries. The journal is listed and/or abstracted by all relevant major secondary services in the world.

Subscription rates for 1987 are \$55 (U.S.) for libraries, \$33 for individuals, and \$20 for full-time students. Subscribers in foreign countries (including those in America) should add \$3 for postage. All correspondence regarding manuscript submissions and subscriptions should be sent to the Managing Editor at the address below. Instructions for contributors appear inside the back cover of all issues.

INSTAAR also publishes a monograph series, Occasional Papers, which is a miscellaneous collection of reports and papers on work performed by INSTAAR personnel and associates. Generally these papers are too long or data-intensive to be published as journal articles. A list of available titles may be obtained from the Managing Editor, Kathleen A. Salzberg, Arctic and Alpine Research, University of Colorado, Boulder, Colorado, 80309-0450, U.S.A.

Report by K.A. Salzberg.

THE ARCTIC INSTITUTE OF NORTH AMERICA

The Arctic Institute plays an energetic role in providing the following products and services:

1. the Grant-in-Aid program which provides annual assistance to students working toward advanced degrees in northern studies;
2. the well-respected multidisciplinary journal Arctic;
3. the newsletter Information North which details current developments in the North;
4. The Arctic Science and Technology Information System (ASTIS), which is a sophisticated online literature-retrieval service, devoted to northern topics;
5. field research stations at Kluane Lake, Yukon and Devon Island, N.W.T. which are available to researchers from Universities, government agencies and private companies; and
6. the Arctic Institute library, a universally accessible northern collection of great historic merit.

The Institute, located at the University of Calgary, Calgary, Alberta, Canada plays an active role with students and faculty. We have a northern lecture series which covers topics from native land claims to archaeology to alpine recreation. Through the Faculty of Continuing Education we currently offer courses for senior citizens; other courses are proposed for the future. We also have an active students' association at the Institute and a Northern

Studies Group of faculty on campus. The purpose of the Northern Studies Group is the promotion, development and coordination of this area of research at the University of Calgary and also provides a way for individuals interested in common topics to meet together.

Arctic is an academic journal published by the Arctic Institute of North America of the University of Calgary in the city of Calgary, Alberta, Canada. The journal is published quarterly, and each issue contains about ten full length papers, a few notes, a number of book reviews and the occasional letter to the editor. In recent years a special series giving arctic profiles of northern historical personalities has been included. The total page count is about one hundred pages per issue.

Manuscripts in all disciplines are welcomed, including the social sciences. Indeed, attention is shifting in the pages of Arctic to topics that include political devolution, sovereignty and structural changes in northern economies in the last few years. Some thirty disciplines are represented in the journal.

As an academic journal, Arctic submits all of its papers for rigorous peer review. Care is taken to avoid disciplinary jargon to as great a degree as possible, and the papers are not regarded as specialty papers. The journal is, however, a journal of primary publication.

As in the case of most North American scientific publications, Arctic asks for a non-mandatory page charge to help defray costs of production.

Arctic goes to a mailing list of about 2800. It is accompanied by the Institute's monthly newsletter, Information North.

This is essentially what the Arctic Institute does and is. The purpose of my job at the Arctic Institute is to expand our network and encourage groups, who might be interested in similar areas, to work together.

Report by Colleen McCracken, Networks, The Arctic Institute of North America, The University of Calgary, 2500 University Drive, North West, Calgary, Alberta, Canada. T2N 1N4.

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