INTERNATIONAL HEAT FLOW COMMISSION

Minutes of the IHFC Business Meeting held at Istanbul, Turkey during the 25th International Association of Seismology and Physics of the Earth Interior on August 25, 1989

Present: S. Uyeda, A.E. Beck, V. Cermak - (IHFC Bureau)
N. Balling, G. Bunelbarth, E. Hurtig, E.A. Guekenova,
Wang Ji-yang, V.I. Zui - (IHFC Members)
D.D. Blackwell (USA), R. Cataldi (Italy), D.S. Chapman (USA),
C. Demetrescu (Romania), F.W. Jones (Canada),
M.Q.W. Jones (South Africa), S.Yu. Milanovski (USSR),
B.B. Nielsen (Denmark), M. Swift (Australia), Ting Ouyang (China),
G. Vasseur (France) - (Guests)

Agenda:
2. Secretary’s Report: IHFC Past and Future Activities
3. WG Leaders’ Reports
4. Finances
5. Discussion: Proposals for the next symposia
   New Working Groups
   International Geothermal Association
6. A.D.B.

1. Chairman’s Report:

Prof. S. Uyeda gave a review of the IHFC organization structure and stressed its main objectives. IHFC is a commission of the IASPEI, under which guidelines operate. Its activities are co-sponsored by the IAVCEI and IAFSG. Among the main activities of the IHFC belong developing and recomending standards and techniques for the determination of all geothermal parameters, gathering and publishing heat flow data, organizing or co-sponsoring international heat flow/geothermal meetings, initiating publications about various aspects of geothermal problems and creating working groups as necessary for solving specific problems in field of heat flow studies.

IHFC has the following Working Groups:
- WG on the Geothermal Atlas of Europe (E. Hurtig)
- WG on the Heat Flow Monograph/Map of Asia (M. Yamano)
- WG on the Heat Flow Map of Latin America (V.M. Hamza)
- WG on Data Collection (H. N. Pollack)
- WG on the Geothermal Aspects of Geotranssects (V. Cermak), this group was established at Istanbul, see further;
- WG’s on Practice in Geothermics, Convective Heat Transfer, Paleo-geothermics and Geothermal Models terminated their activities in 1987. WG Geothermal Studies in Developing Countries will resume its activity in 1990 (will be discussed at Nairobi).

2. Past and Future IHFC Activities:

V. Cermak gave a review of past activities of the IHFC (since 1987) and activities which are to be expected in future 2-3 years. List of meetings and workshops organized by the IHFC is given in a separate sheet; proposed new symposia and their chairmen discussed under the item 5 of the agenda were added.

3. WG Leaders’ Reports:

(a) E. Hurtig delivered the report for the WG Geothermal Atlas of Europe. The project has made a good progress, the atlas will contain geothermal data from 28 European countries, compiled by the editors of the Atlas (E. Hurtig, V. Cermak, R. Haenel and V. I. Zui). 12 maps showing the heat flow density and temperature distributions at 500 m, 1, 2, 3 and 5 km to the scale 1:5,000,000, plus 14 maps of detailed scale (1:2,500,000) showing heat flow and underground temperatures at 1 km depth for selected areas are practically ready; additional maps showing the depth of crust/upper mantle boundary, thickness of the undeformed sedimentary cover, average velocities in the consolidated crust and crustal types in Europe (1:5,000,000) as well as the map of the geothermal potential are to be finished soon. Explanatory texts for 25 countries are ready, missing texts for Hungary, Denmark and Austria are believed to be delivered soon. Also the catalogue is ready for all European countries, with the exception of Belgium (where no heat flow data exist). The listing for marine heat flow data for the Caspian, Black and Mediterranean Seas plus the adjacent part of the Atlantic Ocean was finished. The publication of the Atlas is planned for late 1990 or early 1991.
(b) M.Yasuno reported on the preparation of the Heat Flow Monograph of Asia, which had started in 1987 at Vancouver. The corresponding WG met in Mamamoto/Beppu and in Bangkok and the editorial board was created. The contents of the monograph was discussed and actually several manuscripts were submitted. The monograph will cover the territories of the USER, Japan, China, Korea, Thailand, Malaysia, Indonesia, the Philippines, NW Australia, India, Israel, SW Asia and sea areas surrounding Asia. In the USSR a national WG was organized under the chairmanship of Yu.B.Smirnov. The next meeting of the WG is planned to be held at Moscow in early September 1989 during the International Meeting organized there by the USSR Academy of Sciences, where more detailed programme will be discussed.

(c) Little is known about the progress of the heat flow data compilation and status of the preparation of the map of Latin America. Cermak will contact the WG Leader V.M.Hamza in Brazil to get more information and will inform the IHFC members later.

(d) D.S.Chapman (in absence of H.N.Pollack) informed about the world data collection. The compilation started at 1985 and additional later data were added in 1989. The data base will be available in January 1990 through the World Data Center A (Denver, Colo., USA) or Center B (Moscow) and contains more than 21,900 entries. No paper copy of all data will be prepared, but data will be available on magnetic tape or on floppy discs (3.5 and 5.25 inch).

4. Financces:

A.E.Beck reported on current status of IHFC finances, at present IHFC has on its account 3,750 US dollars.

5. Discussions:

(a) The new Working Group “Geothermal Aspects of the Global Geotransects” was created to facilitate the cooperation between the IHFC and the new GGT Project, the main goal of the new WG is to propose the techniques for 2-D temperature modelling along the long run cross-section (geological profiles, DSS lines and geotransects) and to cooperate in interpretation of geothermal data. The members of the WG are V.Cermak (WG leader, for Europe), M.Jones (Africa), T.Lewis (Northern America), M.Swift (Australia), Wang Ji-yang (Asia) and V.I.Zui (USSR). The WG will have its workshop in 1991 at Bratislava, Czechoslovakia.

(b) The titles for next IHFC Symposia and the names of their convenors for the IASPEI Regional Meeting at Nairobi in 1990 and for the IUSS General Assembly in Vienna in 1991 were proposed.

- The IASPEI/UNESCO/ICL Regional Seismological Assembly in Africa will take place at Nairobi, Kenya, 22-29 August 1990. The IHFC will hold 1½ day symposium “Thermal Regimes and Geothermal Resources, Comparative Studies with the Emphasis on the Rift System” with P.Morgan as a principal convenor. The IHFC will also recommend to the IASPEI/UNESCO to organize a one-week training course for African specialists interested in heat flow studies. The proposal submitted by P.Morgan will be used as a basis for the IHFC proposal to prepare the assembly programme.

- The XX General Assembly of the IUGG will be organized in Vienna, 11-24 August 1991. The IHFC is planning its symposium for which the title “Heat Flow, Rock Mechanism and Earthquakes” was proposed (convenors D.D.Blackwell and G.Ranailli) and a Workshop “Interpretation of the Geothermal Data Sets” (A.E.Beck, D.S.Chapman and Wang Ji-yang). Corresponding proposals will be made to the Secretary General of the IASPEI.

(c) N.Balling informed about the 15th General Assembly of the European Geophysical Society at Copenhagen, 23-27 April 1990, within which the Symposium “Heat Flow and the Lithospheric Thermal Regimes” will be held. IHFC is giving its moral support to the organization of this symposium and will sponsor it.

G.Rundebarth delivered an invitation to host a 3-days seminar on Thermal Properties of Crustal Material at Bad Honnef, FRG, in 1992 or 1993 (spring time) for about 60 participants. University of Bonn owns a suitable house which can offer accommodation and seminar place for this purpose. Some support from local sources will facilitate the attendance.

S.Yu.Milanovski informed about the final preparations to host the International Meeting in Moscow “Thermal Evolution of the Lithosphere and Processes in the Earth’s Interior”, Sept.4-10, 1989. About 40 foreign and more than 100 Soviet participants are expected to attend.
R. Cataldi informed the IHFC about the creation of the new international body - International Geothermal Association. The IGA is a scientific, educational and cultural organization, which will cover research, development and application activities on the field of applied geothermics and in use of the geothermal resources. The IHFC will keep close contacts with the IGA. Information leaflet with general information about the IGA is enclosed.

Praha, September 1989

Dr. Vladimir Cermak, DrSc.
IHFC Secretary

Enclosures: List of IHFC Activities
IGA Information Flyer

LIST OF PAST AND FUTURE IHFC ACTIVITIES
(Supplement to the Istanbul 1989 IHFC Minutes)

Past IHFC Activities or IHFC Co-sponsored Activities since 1987


- Symposium UB "Hydrogeological Regimes and Their Subsurface Thermal Effects" was held during the 19th IUGG General Assembly at Vancouver, August 1987. Proceedings were published by the American Geophysical Union as a Geophysical Monograph No. 47, IUGG Volume 2, in 1989 (editors E. A. Beck, G. Garven and L. Stegna).

- Seminar "Current State of Geothermal Research in Latin America" was organized by OLADE in Quito, Ecuador, October 1988, and was attended by representatives from Argentina, Brazil, Colombia, Ecuador, Panama and Venezuela (convened by V. M. Hamza). Complementary meeting was held at Belém, Brazil, in November 1988 during the Latin American Geological Congress. The main purpose was to create the WG for the preparation of the heat flow map of Latin America.

- International Symposium on Geothermal Energy, 1988 "Exploration and Development of Geothermal Resources" was organized by the Geothermal Research Society of Japan at Kumamoto/Beppu, Japan, November, 1988. A 621-page volume of extended abstracts summarizing the papers presented here was prepared by the organizers and distributed during the symposium.

- IHFC co-sponsored the 3rd CCOP Workshop on Heat Flow in South-East Asia at Bangkok, Thailand, November 1988, which emphasized the use of geothermal data in oil prospecting. The papers presented here will be published as a special publication in 1990.
The IHFC also sponsored the International Meeting "Stress, Strength and Viscosity in the Lithosphere" which was organized by the GDR Academy of Sciences at Gohren/Lebbin, GDR, March 1989.

The IHFC organized two symposia as a part of the programme of the 25th IASPEI Assembly at Istanbul, August 1989: the symposium S14 "Forward and Inverse Modelling in Geothermics" (Convenors: V. Cermak and J.H. Sass) and S15 "Correlation of Geothermal and Other Parameters" (D.S. Chapman, S. Sacks and G. Ranalli). Materials presented during these symposia will be jointly published as a special issue of Tectonophysics. Deadline for submitting the manuscripts to one of the convenors is December 31, 1989.


- One-day Workshop "The Earth's Thermal Regime - A Golden Anniversary Perspective" at San Francisco, USA, on December 3, 1989 (prior to AGU Fall Meeting), convenors H.N. Pollack and R.P. Lowell.

- One-and-half-day symposium "Heat Flow and Lithospheric Thermal Regimes" as a part of the programme of the EGS Assembly at Copenhagen, 23-27 April 1990, convenors N. Balling, V. Cermak and L. Hybach, deadline for submitting abstracts January 31, 1990. Special emphasis will be given on observations, and their corrections (paleoclimate, groundwater flow, structure).

- A symposium "Thermal Regimes and Geothermal Resources, Comparative Studies with the Emphasis on the Rift Systems" will be held during the IASPEI/UNESCO/ICL Regional Seismological Assembly in Africa at Nairobi, Kenya, 22-29 August 1990, followed by a training course for African specialists interested in heat flow studies. Convenor for both items is P. Morgan.


- A International Workshop "Geothermal Aspects of the Global Geotraverse" will be organized by the Czechoslovak Academy of Sciences and co-sponsored by the IHFC, after the Vienna Meeting at Bechyne, 1-7 September 1991. Special attention will be focused on interpreting heat flow and temperature data along the geotraverse and to study the correlations between geothermal and other parameters. Convenor will be V. Cermak, information leaflet will be distributed later.