INTERNATIONAL HEAT FLOW COMMISSION

Minutes of the ad-hoc meeting held at Tokyo, Japan
on 9 November 1988
(called together in connection with the preparation on the International Symposium "Exploration and Development of Geothermal Resources")

PRESENT: S.Uyeda (IHFC Chairman), V.Cermak (Secretary), T.S.Lewis, Wang Ji-yang and M.Yamano (IHFC Members), O.Matsubayashi, Li Xinyuan (Guests)

AGENDA:
(i) IHFC participation in the International Symposium on Geothermal Energy 1988
(ii) Japan-China cooperation in marine heat flow measurements
(iii) IHFC and IHFC related meetings in 1988/1989
(iv) Asia Heat Flow Monograph
(v) IHFC participation in the GGT and the problem of 2-D temperature modelling

(i) IHFC participation in the International Symposium on Geothermal Energy, 1988

S. Uyeda informed about the scope and programme of the International Symposium on Geothermal Energy "Exploration and Development of Geothermal Resources" which is to be held at Kumamoto/Bappu, November 10-14, 1988. Together with the Geothermal Research Society of Japan the IHFC co-sponsors this meeting. Some of the IHFC members or past members would chair one of its sections or would present their papers (R.C.Allis, V.Cermak, M.L.Chap, R.Haenel, O.Matsubayashi, T.S.Lewis, L.Stegena, S.Uyeda, Wang Ji-yang, M.Yamano, V.I.Zui). S.Uyeda would address the General assembly of the Symposium and would introduce the IHFC and its members, briefly explaining the objectives of the IHFC.

(ii) Japan-China cooperation

Japan and China have been cooperating in marine heat flow measurements in the South China Sea, main task is to contribute to the prospects of possible oil and gas deposits. Cooperating institutions include the Earthquake Research Institute and Geological Survey of Japan, which are responsible for the instrumentation, and the Institute of Oceanography, Academia Sinica, which is responsible for the ship time. S.Uyeda and O.Matsubayashi visited China in May 1988 and discussed the details of the measurement, such as long-term temperature recorders in shallow water. In addition to the Inst. of Oceanography in Qing-dao also the Chinese Ministry of Geology in Shanghai is willing to cooperate. They have facilities for shallow drilling (up to 20 metres) to enable temperature measurements (20/30 holes per year).

T.S.Lewis informed about their experiences from similar works performed near Queen Charlotte Islands. Canadians have contacts with the South-East China Sea Institute of Oceanography in Guang-zhou (Prof.Xia, Mr.Hsu, Mr.Chen). T.Lewis will visit China in November, also O.Matsubayashi will visit China soon.

(iii-a) 1988 Meetings

V.M.Hamza informed IHFC Chairman by letter about the Seminar on "Current State of Geothermal Research in Latin America", which was organized by OLADE in Quito, Ecuador, October 10-16, 1988. Hamza used this opportunity to promote a working group meeting to discuss the measures to be taken for the preparation of Geothermal Map and Monograph of South America. Representatives from Argentina, Brazil, Colombia, Ecuador, Panama and Venezuela attended this meeting. He also informed that a complementary meeting would be held during the Latin American Geological Congress at Belém, Brazil in November 1988. No IHFC funds would be necessary. He requested that IHFC funds set aside for the Belém meeting be made available for next year. Dr.R.D.Adams, IASPEI Secretary General agrees, preferably to bring people to the meeting which will be held in the USSR (letter to Uyeda dated Nov.3).

- Čermák reported on the International Seminar "Super Deep Continental Drilling and Deep Geophysical Research", held at Yaroslavl, USSR, August 23-29, 1988. Direct contacts were established there between the IHFC and Prof.J.Monger, Chairman CC-7, and Prof.Goetze (Vice-chairman) concerning the IHFC participation in the Global Geotransect Project.

- Three IHFC Members, editors of the Geothermal Atlas of Europe met recently at Minsk, USSR: Prof. Hurtig, Dr.Zui and Dr.Čermák (Oct.17-19). Prof.Hurtig had met with Prof.R.Haenel earlier this year. At Minsk also Dr.Kutas and Dr.Smirnov were present. The stage of preparation of the new edition of the heat flow map of Europe and the set of deep temperature distribution maps was discussed. The project "Geothermal Atlas of Europe" is running quite well: 11 1:2.5 Mili maps are ready for printing together with another 5 additional maps to the scale 1:5 Million. The whole project will consist of the set of 36 maps, explanatory text of about 300 pages and the catalogue of data. A few firstprinted sheets will be presented at the International Geological Congress in Washington D.C., 1989, the publication of the whole atlas is scheduled for 1990.

- S.Uyeda informed about the forthcoming 6th Japan-USSR Geodynamics Meeting which will be combined with the International Meeting "Tectonics of the Eastern Asia and Western Pacific Area" (International Lithosphere Programme). Meeting will be held in Tokyo, December 1988.

- The 3rd CCOP Heat Flow Workshop will be organized by the Committee for Coordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas (CCOP/ESCAP) in Bangkok, Nov.17-19, 1988. The main objective is to bring together heat flow specialists from south-east Asia and to promote further progress in measuring and interpreting heat flow data from this region. This workshop is to be regarded as a regional IHFC meeting according to the IHFC policy. It was proposed to take necessary steps to promote further cooperation in heat flow mapping and the preparation of the Asia HF Monograph (see enclosure).
The 25th General Assembly of the International Association of Seismology and Physics of the Earth Interior (IASPEI) will meet in Istanbul, Turkey, August 21-September 1. Two one and half days symposia are planned by the IHFC: No. 14 "Forward and Inverse Techniques in Geothermal Modelling" (Convenors: V. Čermáková and J. M. Saaes), 25 and 28 (am) August, and No. 15 "Correlation of Geothermal and Other Parameters" (Convenors: D. S. Chapman, C. Ranalli and J. S. Sacks), 28 (pm) and 29 August. IHFC Business Meeting is planned for August 25 (evening).

The First Circular was distributed by the IASPEI Conference Organization Committee in summer 1988 and the Second Circular is scheduled for late in 1988. The Second Circular will contain full details about the submission of papers, registration and accommodation as well as the topics of all symposia and addresses of their convenors.

All correspondence should be directed to IASPEI Conference Org. Committee, Bayindirlik ve Iskan Bakanligi, Necatiyev Caddeesi 63 Ankara, Turkey, Telex 44041 dae.tr.

On the occasion of the 100th anniversary of the first recording of a teleseismic event the Zentralinstitut für Physik der Erde, AMDDDR will organize an International Meeting "Stress, Strength and Viscosity in the Lithosphere" at Gohren/Lebbin, DDR, March 28 - April 2, 1989. The IHFC co-sponsors this meeting together with the KAPG, TLP W66 and ESC. For more information contact Prof. E. Hurtig, ZPFE DDR, Telegrafenberg A26, Potsdam, DDR 1561, Telex: 15936 vde pdm dd.

The Soviet Geophysical Committee proposed to organize and International Workshop "Thermal Evolution of Lithosphere and Processes in Earth's Interior". This workshop is to be held immediately after Istanbul Assembly in Moscow or near Moscow, so that quite a number of heat flow people may participate on their way back home. The IHFC will cosponsor this meeting. For more information contact Dr. A. O. Oliko, Institute of Physics of the Earth, USSR Academy of Sciences, Bolshaya Gruzinskaya 10, 123910 Moscow, USSR, telex: 411196 ifz an su.

Prof. H. N. Pollack reminded in his letter of the E. Bullard anniversary, in 1989 and proposed to have a symposium to acknowledge Bullard's merits in geophysics/heat flow. As the IHFC calendar for 1989 seems to be full of meetings, it was suggested to postpone Bullard's symposium to 1990. Čermáková was asked to contact H. N. Pollack after his arrival back to Prague in early January to clear this matter with him.

NOTE GIVEN LATER: Prof. Pollack will do preliminary contacts to arrange such meeting in 1990, most probable location will be the United Kingdom (Cambridge ?). IHFC will sponsor this meeting.

In 1990 the Regional Seismological Assembly (Joint Meeting of the IASPEI, Unesco and ICL) will meet in Nairobi, Kenya. I 1/2 days symposium was given to the IHFC and a suitable heat flow topic should be proposed.

KOTE GIVEN LATER: A lot of geothermal work has been done in the East African rift and the topic covering heat flow model/data in the rift system may be a suitable topic. However, following the discussions between A. E. Beck and H. N. Pollack it was suggested that a symposium dealing with heat flow data related to resources and energy would be more suitable rather than academic/tectonic oriented topic. It is necessary to attract as many as possible African people and to get funds for their participation, the applied oriented topic will do better.

(iv) Asia Heat Flow monograph

A lot of discussions focussed on the preparation of the heat flow map of Asia. The current project of the IHFC. It was suggested that such a map should be a part of a monograph, rather than to prepare a geothermal atlas of Asia (similar to what is under preparation in Europe). The monograph should cover a series of papers discussing heat flow pattern and its interpretation in the individual countries/regions. The original proposal and preliminary list of contributions was prepared by M. L. Gupta. After the Vancouver meeting in 1987 the chairman of the corresponding WG (Dr. M. Yamano) has taken the responsibility. M. Yamano will distribute the revised content of this monograph with a call for further contributions. He will also distribute more detailed specifications for the preparation of the heat flow map.

(v) 2-D temperature modelling

Čermáková and Lewis had distributed earlier, 1988 a questionnaire concerning the compilation of data and experiences of various authors with knowledge in two-dimensional temperature calculation. The aim of this questioning was to try somehow standardize the 2-D temperature calculations and to use them as the IHFC participation in the GGT project. Quite vivid discussion follows, but it is clear that it is hardly possible to propose a uniform scheme which would be generally applicable. More discussions are needed and it is believed that the two symposia planned during the Istanbul IASPEI Assembly would be a good place to continue this effort.

Praha, January 1989

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Enclosure: Brief report on Kumamoto/Beppu and Bangkok meetings