REPORT OF ACTIVITY

IAHR – Section I.5 "Hydraulic Instrumentation"

presented at

The XXX Congress IAHR Congress Thessaloniki (Greece)

Tuesday, August 26, 2003

1. Welcome

This is the first section meeting section after the 2000 (Iowa City) changes in the membership – members' introduction

2. Update on HIS Membership and Past Activity

Overall comment: My first memo 08/27/00 presented at the IAHR Council meeting in Iowa City stated three main action items for HIS: rejuvenate the committee, joint conference with ASCE, instrumentation database – all of them accomplished in various degrees of completeness and success. A succinct presentation of the main activities follows.

2.1. **HIS Committee** after the last revision on 06/2001.

Chairman

Marian Muste - Iowa City (USA)- HIS member since 2000

Secretary

Andrej Predin – Maribor (Slovenia) - HIS member since 2000

Section committee members

1. **Kai-Uwe Graw** – Leipzig (Germany) - HIS member since 1996
2. **Ichiro Fujita** – Kobe (Japan)- HIS member since 2000
3. **Roman Klasinc** – Graz (Austria) - HIS member since 1996
4. **Uno Liiv** – Talinn (Estonia) - HIS member since 1992
5. **Andreas Müller** – Zurich (Switzerland) - HIS member since 1994
6. **Vladimir Nikora** – Christchurch (New Zealand) HIS member since 2001
7. **Jean J. Peters** – Brussels (Belgium) - HIS member since 1984
8. **Jaroslav Pollert** – Praha (Czech) - HIS member since 1996
9. **Dusan Prodanovic** – Belgrade (Yugoslavia) - HIS member since 2000
10. **Jose-Carlos Santas Lopez** – Madrid (Spain) **-** HIS member since 2001
11. **Tadashi Utami** – Wakayama (Japan) – HIS member since 1998
12. **Moises Berezowsky Verduzco** – Coyoacan (Mexico) - HIS member since 1998

Comments :

- 6 new members joined HIS since 2000
- special thanks for the collaborative efforts of J.J. Peters, Uno Liiv, Jose-Carlos Santas Lopez, Vladimir Nikora, Andreas Muller, Prodanovic, Kai-Uwe Graw, Andrej Predin, Ichiro Fujita
- it possible that the HIS members act on an individual level at local or international echelons, but the current HIS activity is totally ineficient: need to establish clear responsibilities per section member and reporting modalities to make the contributions (including the content) known to all HIS members
- proposals for new (good) members always welcome

2.2. 29th IAHR Congress Beijing Special Seminars S-3: Instrumentation for Hydraulic Measurements and Experimental Methods, prepared by Andreas Mueller and Chen Bingxin (China Institute of Water Resources and Hydropower Research, Beijing, China)

2.3. ASCE's Task Committee on Measurement and Instrumentation in collaboration with HIS organized an extremely successful conference in Estes Park, Colorado, U.S.A., July 2002 "Hydraulic Measurements and Experimental Methods". More than 150 contributions presented; attendance 212 participants (45 from outside U.S.A.). It was suggested to transform the conference in a periodic event with a frequency of four years (next in 2006).

2.5. Organization of the A-2 Workshop: "Bridging the Gap between Users and Manufacturers" at the present Congress in a whole new format (separate call for papers, paper screening, and preparation for publication in the Congress proceedings): 9 papers selected. The workshop was an excellent opportunity to collaborate with Bernhard Westrich – chairman of the IAHR Experimental Methods Section.

2.4. Increased collaboration with other societies in the area of hydraulic engineering and research. At least four joint IAHR-ASCE meetings have taken place since 2000 with ASCE's Hydraulic Measurements and Experimentation Technical Committee.

2.5. Miscellaneous:

- website created (http://www.iihr.uiowa.edu/~iahr-his/)
- design, construction and implementation of the IAHR Instrumentation Database: http://www.iihr.uiowa.edu:88/instruments/index.jsp
- publication of 4 articles in the IAHR Newsletter

3. Present and future activities

3.1. Echoes of the Thessaloniki workshop:

- how successful and useful it was?
- do we want it as a permanent action at next IAHR meetings?

3.2. Instrumentation Database = a series of considerable efforts:

- several attempts to attract manufacturers – no response
- appeal to HIS and ASCE's and HMETC members for help – not a lot of luck
- financial effort to built the web-based database – (my personal) last alternative
- ideas of continuation and personal involvement welcome – see below Prodanovic's initiative

3.3. Web Site maintenance and development – any volunteer?

3.4. Initiatives (reproduced ad-literam as suggested by initiators)

Tamai's initiative: *Cooperation with other IAHR sections*

"I want to have a meeting to fill a gap between researchers and practicing engineers. Capability of new instruments, accuracy of measurements, needs for interdisciplinary collaboration will be common interests among mathematical model builders (research engineer), users of mathematical models (practicing engineers), researchers in universities, manufacturers, and so on. I would like to propose you to consider a meeting or a short course extending your achievements in Thessaloniki on the occasion of Seoul Congress in 2005 in the interfacial area among mathematical modelers, researchers in universities, and administrative officers who order field observations. The purpose of a meeting is twofold. One is for advancement of our understanding of water environment with higher accuracy. The other is for the promotion of interest and

awareness of IAHR among practicing engineers and managers of water administration. For such a meeting I think collaboration among several sections, such as, hydroinformatics, hydraulic structures, hydraulics instrumentation, and geophysical hydraulics, is effective."

JJ Peters' initiative

"There is one topic which I feel very important: the need for independent assessment of hydraulic instruments. You know that I am particularly involved in (and concerned about) field data needed for hydraulic studies. I mentioned already the issue of feed-back from user to manufacturer (which you put clearly on the agenda with our workshop in Greece) but there is much more to do. Manufacturers present equipment which is "black-box" and we do not know what is coming out of this box. One example is the ADCP and I still do not know what sediment particle size (range?) gives the output. What about sediment with broad gradation?

I have since long contact (and working relations) with the World Meteorological Organization and visited them with Andreas Muller long time ago to discuss collaboration between IAHR-HIS and WMO. I think we should revitalize this and look how we can continue the intercalibration of instruments. I have no time now to develop this now, but we could put this on the agenda as "collaboration of HIS with others (WMO, manufacturers...) about intercalibration and assessment of performances of instruments. So, the other points could be "data acquisition guidelines for hydraulic studies"."

Prodanovic's Inititative

"The idea I would like to discuss on is the inclusion of USERS item within Instrumentation Database. The link within database can be established between already entered equipment and users, so if someone wants to share the experiences, or to share papers and results obtained with certain piece of equipment, can do that through our database. The same logic can be behind data entry: users are to register them self and then enter their personal data, comments, and links to external papers, results etc.

It would be beneficial to the equipment manufacturers, since they can see what are the everyday applications where their equipment is used. It is helpful to future users, too. If I am to solve the problem of measuring the flow profile in shallow water I would like to speak with current users of RD Instruments, for example. Since you did a great job of establishing the front end of Internet page and linking it dynamically with database, I think that inclusion of USERS can be done."

New initiatives: HIS agenda for 31st IAHR Congress, Seoul, (S. Korea, 2005)

Other business

- what about a (working) dinner attended by the entire section???