

1995 Annual Report - Technical Commission VI "ECONOMICS, PROFESSIONAL MATTERS AND EDUCATION"

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TERMS OF REFERENCE

- Collection, analysis and comparison of educational and training programs and changes in photogrammetry, remote sensing and GIS/LIS
 - Investigation of cost and efficiency models in photogrammetric and remote sensing operations
 - Investigation of operational management aspects for remote sensing and GIS technology
 - Collection and synthesis of reports on national and regional activities
 - Promotion and dissemination of information
 - Promotion of computer assisted teaching
 - Identification of the proper channels for international technical cooperation
 - Completion of the History of Photogrammetry
 - Promotion of the inclusion of other languages in the Multilingual Dictionary
 - Development of recommendations for standards of competence in photogrammetric and remote sensing practice
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STATE OF SCIENCE AND TECHNOLOGY OF COMMISSION VI TOPICS

As a very important issue in our discipline, education and training will follow the progress and changes in the high technologies, will take the mode of multi-level, multi-status and multi-way in the future, will be more active, flexible, modular and project-oriented, and will integrate photogrammetry, remote sensing and GIS.

Hardware, software and data sets are now available for Computer Assister Teaching (CAT), but more attention to CAT is required in developing countries.

Faced with changes, chances and challenges, our discipline needs reorganization, reorientation and even renaming, which calls for more reviews and discussions and should be a topic at the Vienna 18th ISPRS Congress in July 1996.

ACCOMPLISHMENTS OF COMMISSION VI DURING 1995

Commission VI co-sponsored and co-organized the fourth international colloquium of the National Laboratory for Information Engineering in Surveying, Mapping and Remote Sensing at Wuhan Technical University of Surveying and Mapping, together with the Geomatics Center of Laval University, China National Natural Science Foundation and China State Remote Sensing Center. The international colloquium, called "LIESMARS '95" for short, was held during 25-27 October 1995, and was centered around the main theme of "three-dimensional, temporal and dynamic spatial data modelling and analysis."

Officially registered participants to LIESMARS '95 included thirteen scholars from Austria, Canada, France, Hungary, Japan, The Netherlands, Pakistan and Sudan with forty-eight scholars from within China. This small scale colloquium aimed at the exchanges of research findings and practical experience in the area, exploration of the latest development, problems and future trends therein, and the possible international cooperation in this field.

Apart from the technical visits, the lecture and discussion topics included:

- Three-dimensional data modelling and analysis
- Spatio-temporal data modelling and analysis
- Dynamic spatial data structures
- Implementation methodology, tools, languages and applications

This colloquium is regarded by international colleagues as of high academic standard, which is reflected in two aspects:

- *Good selection of theme and topics*

Three-dimensional, temporal, and dynamic spatial data modelling and analysis is now a focus of attention from colleagues in the relevant subject areas worldwide.

- *High quality of papers*

Most papers reflected the latest research findings and applications in the area in the world, with some excellent contributions from young Ph.D and MSc. candidates, which is a good sign of the future of our discipline.

On the whole, with the spread of E-mail, Internet, the World-Wide-Web (WWW) and other modern means of communication, the mode of activities of Commission VI needs to be carefully reconsidered and discussed, especially at the July 1996 Vienna Congress.

WORKING GROUP ACTIVITIES DURING 1995

- **WG VI/1 - "Education, Training and Educational Standards for Photogrammetry, Remote Sensing and GIS/LIS"**

by Chairman: Prof. Dr. Jozef J. Jachimski (Poland)
Co-Chairmen: Dr. Greg P. Ellis (Australia)
Prof. Chen Tuan-chih (China Taipei)
Prof. Olubodun O. Ayeni (Nigeria)
Prof. Zong-guo Xia (USA)

Accomplishments of WG VI/1 During 1995

WG VI/1 sponsored and organized, together with WGs VI/4 and WG VI/6, a small scale conference during 21-22 September 1995 in Krakow, Poland. The five participants: Jachimski of Poland, Schuhr of Germany, Badekas of Greece, Waldhaeusl of Austria and Sitek of Poland, held productive discussions on development of the standards for National Reports for ISPRS and will submit their opinions at the Vienna Congress.

WG VI/1 News

Prof. Dr. Zong-guo Xia of the University of Massachusetts at Boston has been appointed co-chairman of the working group to cover activities in the Americas.

- **WG VI/2 - "Computer Assisted Teaching"**

by Chairman: Dr. Kohei Cho (Japan)
Co-Chairman: Prof. Dr. Joachim Hoehle (Denmark)
Co-Chairman: Prof. Charalabos Ioannidis (Greece)

State of Science and Technology of WG VI/2 Topics

- *CAT Software Fact Information Form*

In order to survey the availability of user friendly CAT software in the market and in the network ftp sites, the WG VI/2 prepared a fact information form for describing the contents of the software. The WG VI/2 is providing the fact form to those interested in providing the information on their software to others. The provided information is open to the public through the WG VI/2 newsletters as well as other media.

- *Issuing of Newsletters*

The WG VI/2 issued CAT (Computer Assisted Teaching) Newsletter No. 3 in 1994. The newsletters cover all the activities of WG VI/2 and are distributed to all members of the WG and all others who are interested in CAT.

- *Software Distribution*

The WG is collecting/developing non-commercial software for computer assisted teaching. The software was distributed at the Commission VI Symposium and other occasions. The WG will

continue to collect/develop software for training. The following software are currently distributed by the WG:

- **IMDISP (NASA/JPL)**
An image processing software developed by NASA/JPL which runs on IBM-PC/MS-DOS environment.
- **IMVIEW (Tokai Univ.) for MS-WINDOWS**
A simple image display software developed by Tokai Univ. which runs on MS-WINDOWS.
- **ASEAN (by Dr. Duong of NCSR, Vietnam)**
An image processing software for remote sensing which runs on IBM-PC/MS-DOS environment.
- **GIW (by Dr. Fuhu Ren of UNCRD)**
A GIS software package which runs on IBM-PC/MS-DOS environment.
- *Data Sets Distribution*

With the cooperation of NASDA, the WG distributed the "SAR and Optical Sensor Data Set" CD-ROM upon request to the WG members. The WG will continue to collect and provide this kind of data sets for training.

Accomplishments of WG VI/2 During 1995

- *The International Conference on "Computer Based Learning in Science" (CBLIS '95)*

During 30 June to 4 July 1995, nearly 90 participants came to Opava, Czech Republic from all over the world, including Canada, Australia, Thailand and the European Union; although most were from the United Kingdom and the Czech Republic. The four day program was filled with about 30 lectures and some fine social events. Most of the presented learning programs dealt with mathematics and physics. With respect to photogrammetry was Dr. J. Hoehle's learning program "Learning about Digital Photogrammetry" which was presented by means of a PowerBook with attached LCD screen for display from an overhead projector. The proceedings contains 58 papers which are structured in: Invited Lectures; Review Lectures; Teaching and Learning: Educational Strategy and CBL structures; Monitoring of Performance; Software and Hardware Developments; Intelligent Software; Teaching Packages; Teaching with Simulation; Interactive Programming; Networking and Distance Learning.

- *"The 4th Regional Remote Sensing Seminar on Tropical Ecosystem Management"*

The seminar was held during 4-9 September 1995 at Subic, Philippines, and was jointly organized by the National Space Development Agency of Japan (NASDA), The National Coordinating Committee of Remote Sensing (NCCRS) of the Philippines, and the Economic and Social Commission for Asia and the Pacific (ESCAP). The Remote Sensing

technology Center of Japan (RESTEC) provided technical support and the National Mapping and Resources Information Authority (NAMRIA) of the Philippines spearheaded the preparation and organization of the seminar.

The main objectives of the seminar were to provide scientific and technical information about remote sensing to terrestrial ecosystem, to discuss how to integrate remote sensing with sustainable development planning and to provide hands-on training with the use of personal computers and training materials. A total of 61 participants from 19 countries and organizations attended the seminar. The Program was chaired by Prof. Shunji Murai of

the Asian Institute of Technology and the President of ISPRS. Dr. Kohei Cho and a number of experts from ISPRS WG VI/2 were invited to this seminar to perform the PC based hands-on training. Eighteen junior participants from 15 countries attended the training and learned about remote sensing and GIS.

WG VI/2 News

- *Software Evaluation*

The WG plans to collect and evaluate software for computer assisted teaching. The results will be reported in the newsletter.

- *Software Contest*

The WG plans to perform a software contest on computer assisted teaching at the 18th ISPRS Congress in Vienna, Austria. The details are still under consideration.

- *"The 16th Asian Conference on Remote Sensing" November 1995, Nakhon Ratchasima, Thailand*

The conference (ACRS) was successfully held at the Suranaree University in Nakhon Ratchasima, Thailand during 20-24 November 1995. A total of 358 participants from 31 countries attended the conference. On the third day of the conference, a working group meeting on "GIS Textbook/Software for Education" was held. The meeting was co-chaired by Dr. Ryusuke Shibasaki of Tokyo University and Dr. Kohei Cho. It was agreed to prepare a new textbook and a software for GIS education in the framework of ACRS. It was also agreed to coordinate the activities with ISPRS WG VI/2.

- *"The 5th Regional Remote Sensing Seminar on Tropical Ecosystem Management" August 1996, Fiji*

This planned seminar will receive the support of WG VI/2 and a small WG meeting is planned to take place during the seminar.

- **WG VI/3 - "Terminology and ISPRS Multilingual Dictionary"**

by Chairman:Dr. Gerhard Lindig (Germany)

Co-Chairman:Dr. Joern Sievers (Germany)

Co-Chairman:Prof. Dr. Hans-Peter Bahr (Germany)

State of Science and Technology of WG VI/3 Topics

The international progress of the ISPRS-Dictionary is still not very satisfactory. Proposals should be made and discussed at the Vienna ISPRS Congress as to how to accelerate the work.

Accomplishments of WG VI/3 During 1995

In 1995 neither positive nor negative information came from the WG members, giving hope that work is steadily going on. A new questionnaire/action will start soon to deliver up to date information for the WG Report to be presented at the Vienna Congress.

Good progress can be reported from the German language group which is preparing the 2nd edition of the German part of **ISPRS Multilingual Dictionary** . In spite of the extended content and more detailed information, the improved new concept will remain very handy.

WG VI/3 News

E-mail address for WG VI/3 Chairman, Dr. Gerhard Lindig is:
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- **WG VI/4 - "International Cooperation and Technology Transfer"**

by Chairman:Dr. Stanley A. Morain (USA)

Co-Chairman:Prof. Dr. Walter Schuhr (Germany)

Accomplishments of WG VI/4 During 1995

The WG VI/4 was one of the responsible parties for an ISPRS WGs VI/1, VI/4, VI/6 meeting on the topic "Model for Numerical Representation of Production, Research, Education and International Cooperation in Remote Sensing and GIS/LIS," which took place in Krakow, Poland during 21-22 September 1995. At the meeting, a modern concept for the ISPRS National Reports was discussed and it will be presented at the Vienna Congress. The National Report shall inform and stimulate the progress in our profession. The detailed content and analysis of National Reports will be reviewed, as well as the use of E-mail and WWW for this purpose.

WG VI/4 News

The WG members are planning to attend the "Geoinformatics '96 Wuhan" conference in October 1996 at Wuhan Technical University of Surveying and Mapping and present papers on the work of the WG.

- **WG VI/5 - "Tutorials"**

by Chairman:Dr. Th. Bouloucos (Netherlands)

Co-Chairman:Prof. Dr. Zongjian Lin (China)

Accomplishments of WG VI/5 During 1995

The planned international workshop on "Digital Photogrammetry and Geographic Information Systems" was regrettably not materialized due to reasons out of the control of the WG.

WG VI/5 News

A one-day tutorial "Making the Introduction of GIS in Large Organization Manageable" has been proposed for the Vienna Congress.

- **WG VI/6 - "Economics and Business Management"**

by Chairman:Dr. Gerard Begni (France)

Co-Chairman:Prof. Dr. Richard Groot (Netherlands)

WG VI/6 News

The WG Chairman Dr. Gerard Begni of France resigned from the post in the middle of 1995 due to his heavy work load, but promised to continue making his contribution to the work of the Commission.