

TASK OF PHOTOGRAMMETRIC AND REMOTE SENSING EDUCATION  
(Activity Report of ISPRS Working Group VI-7)

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Commission VI

ABSTRACT

The goals and achievements of the ISPRS Working Group VI-7 are presented. The Working Group members and their areas of interest are listed. The world situation with regard to education in general and with regard to certain regions in particular are elaborated. Cooperative development and self-determination are emphasized.

SOMMAIRE

On y présente les buts et les objectifs du groupe de travail VI-7 de SIPT. Ma liste mentionne les membres du groupe et leurs champs d'intérêt. On y élabore l'état actuel mondial par rapport à l'éducation en général et par rapport à certaines régions en particulier tout en accentuant les développements coopératifs et les disponibilités.

INTRODUCTION - OBJECTIVES

In accordance with the bylaw XIII-10 of the ISPRS statute and subsequent to the XV Congress held in 1984 in Brazil, the new President of Commission VI, Mrs. Olayinka Adekoya, asked this author in May 1985 to form a Working Group (on Education in Photogrammetry and Remote Sensing) and act as the WG Chairman for the period 1985-1988. The assigned tasks of this working group (WG VI-7) are:

1. Promotion and development of education in Photogrammetry and Remote Sensing, particularly in developing countries.
2. Development of training packages and lecture materials for photogrammetry and remote sensing.

It is realized that photogrammetry and remote sensing are two fields of sophisticated activities in the wide area of surveying and mapping (S&M). Therefore, with regard to education and its development, certain sincere and vigorous cooperation with other sister international societies involved in the allied fields of S&M is necessary. The WG considered this aspect as an integral part of the assigned tasks.

## ACTIVITIES

Realizing the fact that the tasks are beyond the capabilities of one single person, the WG Chairman sought assistance from eminent and interested colleagues. Consequently, after a long search and advisement of the Commission President, two co-chairmen were appointed:

1. Dr. Caesar Voute (The Netherlands), for the task of "Development of Training Packages and Lecture Materials"; and
2. Dr. Taichi Oshima (Japan), for the task of "Establishing and continuing links with other sister societies within the International Union of Surveying and Mapping (IUSM)".

The WG Chairman, Sanjib K. Ghosh (Canada), assumed the task of "Coordinating all efforts and of promotion and development of education".

On a closer study of the current status of education in photogrammetry and remote sensing, one can realize that there exists an immediate need of development in three areas of the world, viz.,

- a) The S.E. Asian region;
  - b) The South and Central American region;
- and
- c) The African region.

In view of the regional promotional task, a committee of five colleagues in each of the above three regions has been formed. These groups are representative in terms of their expertise and their respective types of institution. The list follows:

### S.E. Asian Region:

Dr. Kaew Nwalchawee, Asian Institute of Technology,  
Thailand

Prof. Hardi Koesalamwardi, Institute of Technology,  
Bandung Indonesia

Dr. R.S. Tiwari, Roorkee University India

Mr. M.A. Jabbar, Space Research & Remote Sensing  
Organization Bangladesh

Prof. Christy R. Hernandez, University of the  
Philippines Philippines

**S. & C. American Region:**

Prof. Miguel A. Chico, Univ. Provincial de  
La Rioja Argentina

Mayor José Pinto Cifuentes, Inst. Geografica  
Militar Chile

Mr. Pedro Miguel Garcia, Inst. Cubano de Geod.  
y Cartografia Cuba

Mr. Sony Cortese Caneparo Brazil

Mr. Benjamin Fernandez Chaparro, Inst. Geografico  
A. Codazzi Colombia

**African Region:**

Mr. F. Olujohungbe, Econ. Commission for Africa  
Ethiopia

Mr. N. Moussedikou, Inst. National de Cartografia  
Benin

Prof. David N. Kiromo, University of Nairobi  
Kenya

Dr. S.O. Ihemadu, Federal Ministry of Works and  
Housing Nigeria

Prof. Omari Cherkaoui, Inst. Agro. et Vétér.  
Hassan II Morocco

In the so-called "developing countries" there is on the average less than one institution per country that imparts education in photogrammetry in a modest scale. Remote sensing cuts a more sorry figure. It still stays more remote. In our world which is "shrinking" (because of communications explosion) and "changing" (because of the modern technological innovations), one must carefully design the curricula and programs, particularly where there is little or none. The efforts of the Working Group have been intended to ameliorate the situation.

On the basis of our group effort, we have identified our priorities, viz., (1) A need for an international assessment of manpower and facilities in our fields; (2) A need for developing unified curricula; and (3) A need for collaborative research studies and cooperation in sharing educational materials and teaching and research personnel.

With regard to the first, we can depend on the excellent efforts made by the ISPRS WG VI-1 (Chairman, Prof. A.J. Brandenberger). Such information is necessary for success in the aforementioned other two efforts considered as priorities in this Working Group.

With regard to the second, and particularly in view of the conclusion 3.12 arrived at the 1986 Symposium (see p. 152, International Archives of Photogrammetry and Remote Sensing, Vol. 26-6, 1986), two colleagues were assigned the task of looking into this from an international view point, one on photogrammetry and another on remote sensing. Accordingly, there are two invited papers being presented at this congress, which contain recommendations on curricula at various levels of education, one on photogrammetry and the other on remote sensing.

With regard to the third, regional conferences were considered to be the best procedure to follow. In this respect, our experience during the previous quadrennium (1980-84) was beneficial. After two successful regional conferences on education (one in Nigeria in 1982 and the other in Malaysia in 1983) we contemplated for similar conferences for the three regions. Unfortunately due to financial and organizational constraints, this has not been fully possible. However, certain workshops, seminars and presentations have been organized with success. The following would attest our contributions in this regard:

I. Prof. Miguel Angel Chico (Argentina) conducted sessions in Commission VI related activities at the VI National Congress in Photogrammetry at Corrientes, Argentina during September 28-October 2, 1987. The sessions covered matters related to "Professional Aspects, Education in Photogrammetry, Courses and Bibliography". The Congress was attended by 420 participants (120 students amongst them) from several South American countries. The efforts and goals of ISPRS WG VI-7 were discussed and the following resolutions were drawn:

- . To promote donations of photogrammetric materials and photo-cartographic products from major institutions to universities for teaching purposes.
- . To declare the tasks of photogrammetry and photointerpretation as "critical activities" (tasks for which very qualified personnel are needed).
- . To intensify courses dealing with digital processing of images.
- . To recommend updating photogrammetry programs at universities.
- . To set up post-graduate courses in photogrammetry.

II. This author was successful in organizing the following at institutions other than his own:

1. Seminars on photogrammetry education and applications in various areas of science at the Geographical Society of India, Calcutta, India in May 1985.
2. Seminar-workshop on Photogrammetry and Remote Sensing on May 18, 1985 at Chulalongkorn University, Bangkok, Thailand.
3. Seminars and workshops on photogrammetric research methodologies, education curricula and fields of application: (a) during July 31 - August 12, 1986 at Universiti Teknologi Malaysia, Johor Bahru, Malaysia; and (b) Seminar on research activities in mapping under the United Nations' auspices on August 13, 1986 at the ISM/Board of Surveyors, Kuala Lumpur, Malaysia.
4. Seminars and workshops on photogrammetry with emphasis on analytical approaches during May 1987 at the Institute of Agronomy and Veterinary Hassan II, Rabat, Morocco.
5. Presentation of a paper on curricula in photogrammetry at the National Surveying Teachers' Conference, on July 7, 1987 at Madison, Wisconsin, U.S.A.

The Working Group was represented in several sessions at the ISPRS Commission VI Symposium held at Badagry, Nigeria in September 1986. There were numerous papers that relate to the subject matter of this WG. We held a business meeting of the WG during the same symposium where diverse matters were discussed.

## CONCLUSION

Education, curricula and programs, must respond to the changes in the world in view of advances in technology and in view of the specific regional and even personal needs. This means that we should be prepared to restructure our educational programs and even help other disciplines to restructure themselves in view of our impact on the society at large. However, this must be done with caution. The Working Group has been active in this regard. We do realize, nevertheless, that we have to go a long way before significant successful accomplishments are made.

It is the group consensus that the activities of this Working Group be continued beyond this Congress. Education is the essence of any profession. We recommend that the scopes of this working group be extended beyond just the curricula and training packages. In cooperation with the international

organizations like the UNESCO, FAO and The World Bank, we ought to play a more active role in promoting and solidifying education in photogrammetry and remote sensing in the world. More active support of the ISPRS (i.e., beyond just forming a working group) is desirable. The profession has to derive its strength from its education and the dissemination of the education in all spheres of our activities.

I would like to express my sincere appreciation of the cooperation I have received from all members of the working group. On the other hand, President Adekoya and the Secretaries Ayeni and Adeniyi of the ISPRS Commission VI deserve my heartfelt thanks for their support and understanding.