



12.3 Report from the Latin American Regional Representative

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State of the Art of Remote Sensing and Photogrammetry in Latin America

The Latin American Earth Observation (EO) area is undergoing significant expansion, brought about by growing demand for EO applications and therefore associated data and services. In this regard, the region is considered one of the most dynamic markets globally. Latin America EO capabilities are expected to increase substantially as further countries in the region are investing in the application, and current investing countries expand their satellite portfolios. Demand for EO data is also increasing significantly.

Main areas of application are the monitoring of natural resources (e.g. forest monitoring programs, especially in Brazil and Mexico), natural disasters, and land use cover. Recently, climate change related issues, as well as associated adaptation are beginning to gain importance.

In the area of remote sensing, the current trends in the region are:

- Demand for applied remote sensing
- Demand for capacity building
- Demand for data access (as much as possible free access).

Recently, new emerging space agencies have started to strengthen the use of remote sensing in support of governmental demands. Countries such as Mexico, Peru, Ecuador, Colombia, Venezuela are now setting up national space agencies or do have specific governmental institutions devoted to Earth Observation. In parallel, INPE (Brazil) and CONAE (Argentina) have been increasing their associated EO capabilities.

In the area of photogrammetry, applications using UAVs and laser scanning are increasing. In general, the users are making use of the various mapping and 3D algorithms provided with the sensor-device (UAM or Laser Scanner). Recently, Colombia has been elected as President of the Inter-American Commission for the Registry of Property and Survey (Cadastral). The main activity is now with the Institute Agustín Coddazi. This may be a good opportunity for ISPRS to showcase its know-how in photogrammetry in the region. The main problem is to find the funds in order to organize a support workshop inviting technicians and decision makers of the region.

Based on this brief assessment, in relation to ISPRS in Latin America, (and without implicating that all other Commissions have no relevance), the following ISPRS Commissions have larger possibilities for action: Commissions IV, V, VI and VIII.

Promoting ISPRS among Latin American Institutions

The Regional Representative participated in the following international meetings and promoted ISPRS:

- International Symposium on Remote Sensing of Environment (ISRSE), Berlin, May 2015
- GEO Ministerial meeting, 9-13 November, Mexico City

Bringing ISPRS to Latin America

In Latin America the following activities were carried out to support ISPRS:

- Workshops on Digital Documentation of Cultural Heritage: Advantages and Disadvantages, Mexico City, 27 April 2015 and Campeche, Mexico City, 30 April and 1 May, 2015, in association with the University of Ghent and UNESCO.
- Workshop on Promoting the Use of Satellite Data to Support National Environmental and Climate Change Decision-making in the Caribbean, 3-5 December, Kingston, Jamaica, jointly with the University of Ghent and UNESCO-Kingston.

ISPRS involvement with ICSU-Future Earth

With ISPRS support, the Regional Representative was selected for the Future Earth Scientific Engagement Committee. Working as Ambassador of Remote Sensing and Photogrammetry, he has been able to convince Future Earth of the vital importance that the themes of ISPRS do have for Future Earth. Remote Sensing and Photogrammetry are now official themes of Future Earth and will be used in all Future Earth projects.

Recommendations to ISPRS

While Latin America is actively teaching remote sensing and photogrammetry in universities, there are no incentives to encourage research in these areas. Therefore, most of the students emerging from the universities begin working on applications in the various governmental institutions. In general, this poses the main problem for ISPRS: the region focuses more on applications, as compared to research. This does not mean that ISPRS does not have opportunities in Latin America, but that ISPRS has to have a presence in Latin America with experts showing the new trends of remote sensing and photogrammetry who mainly demonstrate how these new developments are being used in concrete applications.

Therefore it is suggested that ISPRS organize an event in Latin America every two years. The form of the event has still to be defined (e.g. a Geo-spatial Week).