THE TEACHING OF REMOTE SENSING IN SOUTH AMERICA

Tania Maria Sausen*

*ISPRS-TC VI-WG1

Ministry of Science and Technology-MCT
National Institute of Space Research-INPE
Teaching, Documentation and Special Programs Coordination-CEP
Av. dos Astronautas 1758, Cx.P. 515
ZIP CODE 12201-970 São José dos Campos, SP, Brazil
Phone: (55) (12) 345 6862
Fax: (55) (12) 345 6870

ISPRS Commission VI Working Group 3

Abstract

This paper presents an overview about the remote sensing teaching in South America, as well as to trends for the coming years. The remote sensing teaching in South America began in April, 1971 with the installation of the remote Sensing Master Course in the National Institute of Space Research-INPE, in São José dos Campos, São Paulo state, Brazil. This was the first world's master course in this area and for more than 15 years it was the only one. It was created with the purpose of qualifying Brazilian professionals, from natural resources area, to form the research team of INPE Remote Sensing Division. This came shortly after the beginning of the activities of remote sensing in Brazil and in Argentina, that were the first two countries of South America to work with this technology. Despite this near-simultaneous beginning the development of personnel's qualification and research activities was totally different. While in Brazil people were devoted more and more to remote sensing, in Argentina there was a progress for certain time, later there was a period of stagnation and in the last five years s recovery was undertaken. While Brazil qualified people in the master course, around 250 students, among Brazilians and Latin-American that already obtained theirs master degree in remote sensing in INPE, Argentina never created regular courses in this area. Existing courses were short terms one, that is to say training courses. Theirs professionals are qualified in Brazil, United States and Europe. Now there is a very big interest from National Commission of Space Activities-CONAE of Argentina and some universities in the creation of specialization courses. Brazil, after 1971, has created a specialization course (1985) in INPE dedicated to Latin-American students, where already more than 104 students has graduated, a specialization course in remote sensing to agriculture and cartography in Santa Maria's Federal University (South of the country), a specialization course in the São Paulo State University-UNESP, Rio Claro Campus (in the Southeast of the country) today already extinct, one more master course (1990) in the Rio Grande do Sul Federal University (South of the country, close Argentina and Uruguay) and a doctorate course (1997) in INPE. Since 1996, together with ITC of Holland it was created in Cochabamba city, Bolivia, the Center of Aerospace Survey and Applications of GIS for Sustainable Development of Natural Resources-CLAS, that offers specialization courses in remote sensing and GIS. The Institute Agustin Codazzi-IAC, located in Bogota, Colombia, for a long time developed activities with ITC to offer courses in the photogrammetry and natural resources areas. This partnership no longer exists, but IAC continues offering courses in these two areas, and short term and specialization courses in the remote sensing and GIS areas. Since 1996 a growing concern about fundamental, secondary and undergraduate students qualification in the remote sensing area in South America has been observed. This concern was first addressed in 1997 when the I Workshop on Remote Sensing Teaching on Mercosul was held in Brazil. In this workshop was discussed the state-of-the-art of remote sensing teaching in Argentina, Bolívia, Brazil, Chile,

Paraguay about ren America.l projects in but all ov UNISPAG Paraguay and Uruguay (Mercosul countries). As a consequence of this workshop several projects about remote sensing teaching and development of educational material were created in South America. Most of these projects are dedicated to fundamental and high school teaching, like the projects in Bolívia, Brazil and Argentina. This is an observed thoroughly not only in South America but all over the world. It was quite discussed during Latin América's Preparatory Meeting for UNISPACE III, in Concepción city, Chile, in october 1998.

vell as to ril, 1971 of Space 's master irpose of of INPE e sensing with this lification more to period of ole in the obtained s in this onals are National eation of in INPE luated, a Federal UNESP, er course tina and nd it was GIS for n remote ong time es areas. ind short concern sing area en the I

385

hop was l, Chile,