Report on the SIRGAS School on Reference Systems and the Symposium SIRGAS 2014
La Paz, Bolivia, November 20 - 26, 2014.

The Geocentric Reference System for the Americas (SIRGAS) is the fundamental layer for all kind of positioning and geo-information in science and praxis in Latin America from Mexico to Tierra de Fuego. Nearly all South and Central American countries have adopted it as their official reference system for scientific and practical applications. Besides the establishment and maintenance of the geocentric reference frame for the region, SIRGAS is responsible for the definition and realisation of a gravity-field related vertical reference system that guarantees consistency and reliability continent-wide (heights with the same accuracy everywhere) and a long-term stability (heights with the same order of accuracy at any time).

The current activities, advances, and new challenges of SIRGAS are reported, discussed, and re-oriented (if required) in the annual SIRGAS Meetings, which have been held since 1993. In this series, the Symposium SIRGAS 2014 took place in La Paz, Bolivia from November 24 to 26, 2014. In the days prior to the Symposium (November 20 - 22), a SIRGAS School on Vertical Reference Systems was held. Both events were hosted by the Instituto Geográfico Militar of Bolivia.

The SIRGAS School was attended by 34 participants from 13 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Panama, Paraguay, Peru, Uruguay, and Venezuela. The thematic of the school concentrated on the continental adjustment of the first order national vertical networks based on geopotential numbers. This included a capacitation on height systems, least squares adjustment, and processing of gravity and vertical networks. Attendees were provided with computation software, so the theory lectures were complemented by practical exercises.

The Symposium SIRGAS 2014 was attended by 260 participants from 19 countries (in addition to the School participants, Dominican Republic, Germany, Honduras, Mexico, Puerto Rico, and USA). In 39 oral presentations and 24 posters, the following topics were presented: Gravity and geoid modelling in the SIRGAS region, developments related to vertical reference systems and frames, geodetic estimation of geophysical parameters, report of the SIRGAS reference frame analysis centres, national reference frames and related applications, geodetic modelling of the Earth's crust deformations (in particular in the Andean orogeny), and practical usability of the SIRGAS reference frame. Presentations and extended abstracts of the contributions are available at the SIRGAS web site (www.sirgas.org).

Thanks to the support of the International Union of Geodesy and Geophysics (IUGG), the International Association of Geodesy (IAG) and the Pan-American Institute of Geography and History (PAIGH), it was possible to provide 19 SIRGAS colleagues from 8 countries with partial travel grants. SIRGAS deeply acknowledges this support.

Claudio Brunini, SIRGAS President
Laura Sánchez, SIRGAS Vicepresident

Attendees of the SIRGAS School on Vertical Reference Systems.
La Paz, Bolivia, November 20-22, 2014.

Attendees of the Symposium SIRGAS2014.
La Paz, Bolivia, November 24-26, 2014.