



# GNSS Activities of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean

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## Background of the Regional Centres, affiliated to the United Nations

- UN, 1984 – Space science and technology are tools for economic and social development;
- Developing countries need to have access to high-level in-depth education and training;
- International education and training programmes are not sufficient
  - Limited number of programmes for in-depth education;
  - Limited number of short-term courses (UN, FAO, WMO, UNESCO, national, international).



## Background of the Regional Centres, affiliated to the United Nations

- Resolution 45/72 of the General Assembly of the UN, 1990: “UN should lead ... establishment of Regional Centres ...”
- Regional Centres established in:
  - Asia and the Pacific (India, 1995);
  - Latin America and the Caribbean (Brazil & Mexico 1997);
  - French-speaking Africa (Morocco, 1998)
  - English-speaking Africa (Nigeria, 1998)



## Regional Centre for Latin America and the Caribbean (CRECTEALC)

- Campuses in Brazil and Mexico
- Long-term post-graduate education programmes
  - Remote sensing and GIS
  - Meteorology and Atmospheric sciences
  - Satellite Communications
  - Basic Space Sciences
- Workshops, short courses, seminars on specific subjects in the above areas



## GNSS Activities of CRECTEALC – UNISPACE III

- First GNSS Course, in cooperation with ESA, INPE and UNISINOS
- Portal on the use of GNSS in agriculture



## GNSS Activities of CRECTEALC Galileo Information Centre

- CRECTEALC is the Coordinator of the LATINO Consortium, including Ecuador as a node, to carry out the work of the Galileo Information Centre for Latin America and the Caribbean
  - Support the future Galileo user communities
  - Develop a Galileo portal (information related to Galileo)
  - Prepare educational material
  - Organize courses and seminars



# GNSS Activities of CRECTEALC

- Galileo Portal, operational in 2006

## Courses and seminars

- Outreach seminars on Galileo, September 2006 and 2007, held during GIS Brazil, Sao Paulo
- Galileo Information Days, “Global Navigation Satellite Systems – Current and future prospects”, March 2007, Brazil
- Summer School on Galileo, December 2007, Brazil
- Fall School on Galileo, October 2008, Mexico

## Educational material

- Manual on Galileo, December 2007; to become a general manual on GNSS (English and Portuguese)



# GNSS Activities of CRECTEALC

## Future workshops:

- Meeting on Galileo Networking for Industry, Brazil, 2009
- Workshop on GNSS capabilities and use in research and applications, Mexico 2009





## GNSS Activities of CRECTEALC

Preparation of GNSS curricula (in cooperation with other Regional Centres; effort led by OOSA)

- Participation in “International Training Course on Satellite Navigation and Location Based Services”, CSSTEAP, Ahmedabad, India, 2008
- United Nations/Colombia/United States of America Workshop on the Applications of Global Navigation Satellite Systems, Medellin, Colombia, June, 2008



# GNSS Activities of CRECTEALC

## Proposal:

- CRECTEALC as Information Centre for the ICG in Latin America and the Caribbean
- CRECTEALC Offers:
  - Regional reach
  - Education programmes in all space disciplines
  - Support the development of educational material in Portuguese and Spanish
  - Support for the development of a policy to create critical mass in the region



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THANK YOU!