



Office for Outer Space Affairs
United Nations Office at Vienna



United Nations/Colombia/United States of America Workshop on the
Applications of Global Navigation Satellite Systems

Status of the Follow-up Projects and Initiatives since the
UN/USA International Meeting of 2004

Medellin, Colombia

23 – 27 June 2008



UNISPACE III: 1999, UNOV, Vienna, Austria

- The Space Millennium: Vienna Declaration on Space and Human Development (Vienna Declaration)
 - GNSS related recommendation:

“To improve the efficiency and security of transport, search and rescue, geodesy and other activities by promoting the enhancement of, universal access to and compatibility of space-based navigation and positioning systems”

Action Team GNSS: Establishment in 2001

- Recommendations that have been assigned highest priority by Member States of the United Nations
- GNSS Action Team co-chaired by the United States and Italy



Action Team GNSS: Working Groups

- Surveying, mapping, and Earth sciences
- Agriculture and management of natural resources
- Environmental monitoring and management
- Transportation
- Education and training, awareness increase

Action Team GNSS: 2001 – 2004

- Regional workshops and international meetings with system providers, augmentation system providers, and users
 - 2001: Malaysia (ESCAP) and Austria (ECE)
 - 2002: Chile (ECLAC) and Zambia (ECA)



UN/USA International Meetings on the Use and Applications of GNSS

- 2002
- 2003
- 2004
 - Action Team concluded
 - ICG Terms of Reference
 - ICG Work Plan
 - GNSS/ICG Web Information Portal
 - Follow-up projects/initiatives on GNSS applications (21)
 - UN/Italy long-term fellowship programme on GNSS
 - AFREF, **SIRGAS**, EUPOS/EUREF, APRGP

- UNISPACE III+5: Review of the implementation of the recommendations of UNISPACE III
(UN GA Res. 59/2, para 11)



Status of the Follow-up Projects and Initiatives since the UN/USA International Meeting on the Use and Applications of GNSS, December 2004

- Geocentric Reference System for Americas (SIRGAS)
 - Organization of a workshop/meeting of SIRGAS in the ECLAC countries –
 - Working relations between ICA and spatial data infrastructure organizations
 - Exchange of information and the development of common ground between the GNSS and the geospatial communities
- Agriculture and management of natural resources
 - Promote and disseminate the use and applications of GNSS technologies, to improve and facilitate management and decision-making
- Management of the environment and natural disasters
 - Estimation of the water vapor in the atmosphere using GPS, Study of ionosphere, Capacity-building in the use of GNSS in the environment and disaster management



Status of the Follow-up Projects and Initiatives since the UN/USA International Meeting on the Use and Applications of GNSS, December 2004

- Transportation (awareness increase)
 - Raise the awareness of administrators and decision makers concerning the potential benefits of GNSS applications for all transportation modes
- Inland waterway/marine transportation
 - GNSS navigation for the Magdalena River
- Training, education and awareness increase
 - Organization of Workshops/ Training Courses
- Education curriculum on GNSS
 - Regional Centres for Space Science and Technology Education, affiliated with United Nations
 - [ICG Information Centres](#)



UN OOSA Support of GNSS Activities: 2005

- Support to the regional on-going long-term projects to establish or further develop regional reference frameworks:
 - [SIRGAS, Geocentric Reference System for the Americas](#)
 - EUPOS, European Position Determination System
 - AFREF, African Reference Frame

- Master's level GNSS course (with Politecnico di Torino)

- Promotion of integration of lectures and field work on GNSS in education curriculum and activities of the regional centres

- Seminar on GNSS: Current status and future developments
 - CRECTEALC, Brazil campus, August 2005
 - Colombian International Workshop on the Use and Applications of GNSS, Colombia, September 2005

- [UN International Meeting for Establishment of the ICG, December 2005](#)



International Committee on Global Navigation Satellite Systems (ICG)

- *A forum to discuss Global Navigation Satellite Systems to benefit people around the world*

ICG Work Plan

- **Compatibility and interoperability**
- **Enhancement of performance of GNSS services**
- **Information dissemination (UN OOSA)**
- **Interaction with international organizations, national, and regional authorities**
- **Coordination among service providers**



International Heliophysical Year (IHY 2007)

- **IHY Instrument Arrays**
 - **Advancing understanding of the heliospherical processes that govern the Sun, Earth, and Heliosphere**
 - **Demonstrating the beauty, relevance, and significance of space and Earth science to the world**
 - **Continuing a tradition of international Collaboration on the 50th anniversary of IGY 1957**
- **Coordinated Investigation Programmes**
 - **heliosphere and cosmic rays, solar, magnetospheres, ionized atmospheres, climate, astro/heliobiology**



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