

United Nations Office for Outer Space Affairs

International Committee on Global Navigation Satellite Systems (ICG): A System of Systems

Scientific and Technical Subcommittee
11 – 22 February 2008
Vienna, Austria

Outline of the Presentation

- ◆ **UNOOSA, UNISPACE III**
- ◆ **UNISPACE III: Action Team on GNSS**
- ◆ **International Committee on GNSS (ICG)**
- ◆ **Information Dissemination**

UN Office for Outer Space Affairs

- ♦ **Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), 1999: “The Space Millennium: Vienna Declaration on Space and Human Development”**
 - ♦ **Recommendation concerning GNSS:**

“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 Teams established by UN COPUOS under voluntary leadership by Member States**
 - ♦ **GNSS Action Team co-chaired by the United States and Italy**

Action Team GNSS: 2001-2004

- ◆ **UN/USA Regional Workshops with system providers, augmentation system providers, and user community**
 - ◆ 2001: Malaysia (ESCAP) and Austria (ECE)
 - ◆ 2002: Chile (ECLAC) and Zambia (ECA)
- ◆ **UN/USA International Meetings: 2002 - 2004**
 - ◆ Action Team concluded
 - ◆ ICG Terms of Reference
 - ◆ ICG Work Plan
 - ◆ Follow-up projects/initiatives on GNSS applications
 - ◆ AFREF, SIRGAS, EUPOS, EUREF, APRGP, PCGIAP



Office for Outer Space Affairs
United Nations Office at Vienna



ICG International Committee on
Global Navigation Satellite Systems

**Building a system of systems through the
short-term
“Action Team”
to a
Long-term
“International Committee on GNSS”
(ICG)**



Establishment of ICG as reflected by

**The United Nations General Assembly,
in its resolution 61/111 of 14 December 2006,**

**" ...noted with appreciation that the International Committee on
Global Navigation Satellite Systems had been established
on a voluntary basis as an informal body to promote cooperation,
as appropriate, on matters of mutual interest related to civil
satellite-based positioning, navigation, timing and value-added
services, as well as the compatibility and interoperability of
global navigation satellite systems, while increasing their use
to support sustainable development, particularly in
developing countries"**

International Committee on Global Navigation Satellite Systems (ICG)

A forum to discuss Global Navigation Satellite Systems (GNSS) to benefit people around the world

ICG Membership: Members, Associate Members and Observers

- ♦ 9 nations and the European Community
- ♦ 15 organizations (UN system entities, IGOs, NGOs)

ICG participation is open to all countries and entities that are either GNSS providers or users of GNSS services, and are interested and willing to actively engage in ICG activities

First Meeting of the ICG, UNOV, Vienna, Austria: 2006

Workplan

- ♦ **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**

Secretariat

- ♦ **United Nations Office for Outer Space Affairs (UN OOSA)**

Second Meeting of the ICG, ISRO, Bangalore, India: 2007

Providers' Forum

- ♦ **Within the ICG is the Providers' Forum, consisting of those countries (United States, Russian Federation, European Community, China, India, Japan) operating GNSS systems or with plans to develop one. The Forum provides a venue for coordination and cooperation to improve overall service provision**

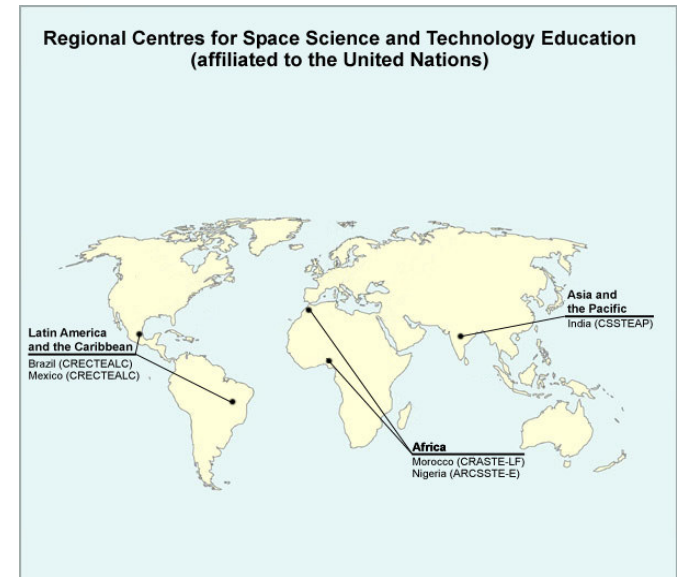
Third Meeting of the ICG, JPL, Pasadena, USA: December 8 – 12, 2008

Fourth Meeting of the ICG, Roscosmos, Russian Federation: 2009

Information Dissemination (UN OOSA)

ICG Information Centres (Regional Centres)

- ♦ **The Regional Centres for Space Science and Technology Education were created under the auspices of the United Nations through its Office for Outer Space Affairs (UNOOSA)**
- ♦ **Goal: to develop, through in-depth education, an indigenous capability for research and applications in the core disciplines of:**
 - ♦ Remote Sensing & GIS,
 - ♦ Satellite Communications,
 - ♦ Satellite Meteorology and Global Climate,
 - ♦ Space and Atmospheric Sciences as well as data management.
- ♦ **Regional Centres located in:**
 - ♦ **African region: CRASTE-LF (Morocco), CSSTE-E (Nigeria)**
 - ♦ **Asia and the Pacific region: CSSTEAP (India)**
 - ♦ **Latin America and the Caribbean: CRECTEALC (Brazil and Mexico)**



Information Dissemination (UN OOSA)

Promoting the use of GNSS technologies

2006:

- ♦ **UN/Zambia/ESA Workshop on the applications of GNSS technologies in sub-Saharan Africa, Lusaka, Zambia**
- ♦ **UN/China/ESA Training Course on the applications of GNSS, Beijing, China**

2007:

- ♦ **Special session on GNSS and global climate change, October, Algiers, Algeria**

2008:

- ♦ **UN/Colombia/USA Workshop on the applications of GNSS, 23-27 June, Medellin, Colombia**
- ♦ **International Workshop on GPS applications, ISEA, 18 – 24 May, Crete, Greece**
- ♦ **International Training Course on Satellite Navigation and Location Based Services, CSSTEAP, 18 June-18 July, Ahmedabad, India**
- ♦ **ICG Expert Meeting on GNSS systems and services, COSPAR, 15 July, Montreal, Canada**



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