

**United Nations/Zambia/ESA Regional Workshop  
on the Applications of  
Global Navigation Satellite System Technologies in Sub-Saharan Africa**

**Lusaka, Zambia, 26–30 June 2006**



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United Nations Programme on Space Applications (PSA)

# Cross Cutting Activities

UN Millennium Declaration

(WSSD) World Summit on Sustainable Development

WISIS (World Summit on Info. Society)

## Knowledge Based Space Sciences

(Based Space Science)

(Space Law)

**OOSA**

**PSA**

## Space Technology

### Sustainable Applications

Disaster management  
Natural Resources Mgmt  
Environmental Monitoring  
Tele-health, Tele-education

## Enabling

### Space Technologies

Remote Sensing, Global Navigation  
Satellite Systems (GNSS),  
Communications, Earth Observation, &  
Meteorological Satellites  
Small Satellites

(WCDR) World Conference on Disaster Reduction

UNISPACE III+5

Plan of Action



## **Programme on Space Applications Activity Summary**

### **A. Training for capacity-building in developing countries:**

- **Workshops, training courses, expert meetings and symposiums**
  - In 2005, 12 activities were conducted
  - In 2006, 10 activities are planned
  
- **Affiliated regional centres continue to provide long term postgraduate courses**
- **Mid term and short term training courses**
- **Fellowship programme**
  - UN/Italy Long-Term Fellowship Programme on Global Navigation Satellite Systems (GNSS) and Related Applications

### **B. Disseminating and increasing the awareness of knowledge-based themes**

- **Basic space science: Explore possible ways for sustainable development**
- **Space Law: Build capacity, UN Treaties and Principles on Outer Space**

### **C. Providing technical advisory services and promoting regional cooperation**

- **Asia-Pacific Satellite Communications Council**
- **Space Conference of the Americas**



## Programme on Space Applications Activity Summary (cont'd)

### **D. Promoting the use of and access to space-based technology & information**

- **Disaster management and International Charter “Space and Major Disasters”**
- **Data sharing: Distribution and use of available global Landsat data sets for sustainable development in Africa**
- **Regional Task Forces: for disaster management, tele-health**
- **Pilot projects for sustainable development**
- **Satellite-Aided Search and Rescue For Distress Situations**
- **Satellite communications applications: Tele-health, tele-education**
- **Global Navigation Satellite Systems (GNSS)**



## BACKGROUND

- ◆ **1999: Plan of Action of OOSA, following UNISPACE III**
  - ◆ Training module on capacity-building in the use of global positioning and navigation systems in various areas of applications
  
- ◆ **2001-2004: Series of UN/USA Regional Workshops and International Meeting of Experts on the Use and Applications of GNSS**
  - ◆ August 2001, Kuala Lumpur, Malaysia, for Asia and the Pacific;
  - ◆ November 2001, Vienna, Austria, for Central and Eastern Europe;
  - ◆ April 2002, Santiago de Chile, for Latin America and the Caribbean;
  - ◆ July 2002, Lusaka, Zambia, for Africa and Western Asia;
  
  - ◆ November 2002, Vienna, Austria, International Meeting
  - ◆ December 2003, Vienna, Austria, International Workshop
  - ◆ December 2004, Vienna, Austria, International Meeting





## 2004 International Meeting

**The objectives of this International Meeting were:**

◆ **Part one:**

**(1) Review progress made in implementing the recommendations of the International Meetings, 2002-2004 in Vienna;**

**(2) Review any follow-up initiatives and actions resulting from the series of UN/USA Regional Workshops on GNSS;**

**(3) Review specific recommendations of the Action Team on GNSS and possible ways and means to implement them in 2005 and beyond; and**

**(4) Review status of follow-up projects and potential ways and means to carry them forward in 2005 and beyond;**

◆ **Part two:**

- ◆ **Develop further the draft terms of reference for the establishment of an ICG**





## Results from the International Meeting 2004 (A/AC.105/846)

### Part one:

- ◆ Carried forward recommendations of the Action Team on GNSS
- ◆ Reviewed and updated status of 21 follow-up projects/initiatives

### Part Two:

- ◆ Further developed terms of reference for the ICG
- ◆ Recommended sponsorship of regional workshops and other types of activities to fulfill the objectives of ICG



## Follow – up projects/initiatives contained in UN document (A/AC.105/846)

- ◆ **Survey and mapping**
- ◆ **Agriculture and management of natural resources**
- ◆ **Management of environment and natural disasters**
- ◆ **Transportation**
- ◆ **Education and Training**







## OOSA 2005 SUPPORT FOR GNSS ACTIVITIES

- ◆ **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 GNSS (ICG)

- ◆ It's directed towards developing nations where there's a knowledge gap about GNSS and what they can gain from it
  - ◆ As "a group of groups" - to encourage the compatibility and interoperability among the GNSS systems,

### While...

- ◆ Increasing their use to support sustainable development, particularly in the developing countries
- ◆ ICG information portal
  - ◆ To provide information about the GNSS related activities of ICG members/observers, GNSS applications, training, and the development of regional reference systems
  - ◆ <http://www.unoosa.org>



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