



INFORMATION NOTE

United Nations/China /European Space Agency Training Course on the Use and Applications of Global Navigation Satellite Systems

Organised jointly by
**The United Nations Office for Outer Space Affairs and the
Ministry of Science and Technology of China on behalf of the Government of China**

Co-organised by
**The European Space Agency,
China National Space Administration and
Secretariat of Asia Pacific Multilateral Cooperation in Space Technology and Application**

Hosted by
**The National Remote Sensing Centre of China and
China-Europe GNSS Technology Training and Cooperation Centre**

Beijing, China, 4 – 8 December 2006

1. Background

The Plan of Action, contained in document A/59/174 entitled “Review of the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space” and endorsed by the General Assembly in its resolution 59/2, presented findings and proposed specific actions in the areas that are important for strengthening and further developing the well-being and the future of all nations. These actions include, among others, maximizing the benefits of the use and applications of global navigation satellite systems (GNSS) to support sustainable development, developing a comprehensive, worldwide environmental monitoring strategy as well as improving the management of the Earth’s natural resources.

Since 2001, the Office for Outer Space Affairs of the United Nations has organized a series of regional workshops and international meetings to promote the use of GNSS. These workshops and meetings presented the status of existing and near-term global navigation satellite systems and their augmentations and also presented examples of GNSS applications that support sustainable development and protect the environment.

The participants of the United Nations/United States of America International Meeting on the Use and Applications of Global Navigation Satellite Systems, which was held in Vienna in December 2004, summarized the follow-up projects and initiatives being implemented since December 2003 and put forward a number of recognitions and recommendations in the areas of: capacity development and knowledge building; enhancing awareness; and applications of GNSS technologies, while increasing their use to support sustainable development, particularly in the developing countries.

Information on the series of GNSS workshops and meetings carried out by the Office can be obtained on the following website: <http://www.oosa.unvienna.org/SAP/gnss/index.html>

This training course is one of the activities to follow up the recommendations by the 2004 International Meeting as afore mentioned. This course is being organized in cooperation with the Government of China and the European Space Agency (ESA), as part of the activities of the United Nations Programme on Space Applications, for the benefit of the developing countries in Asia and the Pacific region. The training course will be hosted by the National Remote Sensing Centre of China, of Ministry of Science and Technology of China.

The topics addressed in the course will be focused on the basics of reference systems, the basics of orbits mechanics and the functional principles of navigation systems. As for this latter topic an overview of GALILEO, GLONASS, and the Global Positioning System (GPS) will be provided. Areas of GNSS applications will include surveying and mapping, management of natural resources, the environment and disasters, aviation, transport and communications.

2. Training Course Objectives

The objectives of this training course are (1) to introduce GNSS technology and its applications to transport and communications, aviation, surveying and mapping, management of natural resources, the environment and disasters, agriculture; (2) to promote greater exchange of actual experiences with specific applications; and (3) to encourage greater cooperation in GNSS applications in the region.

This training course will also contribute to international cooperation by providing opportunity to exchange updated information among the participants.

3. Training Course Programme

The training format includes lectures, presentation of examples, exercises and technical visit. The following topics will be addressed:

- Overview and status of global navigation satellite systems (GALILEO, GLONASS, GPS) and their augmentations;
- The GNSS application areas overview on transport and communication, aviation, location based services, energy exploitation, tracking of animals or dangerous goods, management of natural disasters, emergency management, surveying and mapping, precision agriculture, etc.;
- Introduction to the Galileo Programme and the cooperation between China and Europe.

Technical visit: Visit the companies/organizations, which provide integrated satellite navigation services in Beijing.

3. Sponsorship of the training course

The Office for Outer Space Affairs of the United Nations, the National Remote Sensing Centre of China and the European Space Agency are responsible for organizing the training course. The China National Space Administration and the United Nations Economic and Social Commission for Asia and the Pacific are co-organising the training course. **Sponsorship of the training course still open to interested entities.**

4. Expected participants

The training course is being planned for a total of 45 participants. It is directed at educators and engineers drawn from universities, international, regional and national institutions/organizations. **Equally qualified female applicants are particularly encouraged.**

5. Language of the training course

The working language of the training course is English.

6. Financial support

Within the limited financial resources available, a limited number of selected participants will be offered financial support to attend the training course. This financial support will defray the cost of travel (a round trip ticket – most economic fare – between the airport of international departure in their home country and Beijing) and/or the room and board expenses during the duration of the training course.

7. Deadline for Submission of Applications

The completed application form, properly endorsed by the applicant's Government/institution, should be mailed to the Office for Outer Space Affairs, United Nations Office at Vienna, Vienna International Centre, P.O. Box 500, A-1400, Vienna, Austria, **no later than Friday, 6 October 2006.** The applicant may also submit his/her application through the Office of the Resident Representative of the United Nations Development Programme in the applicant's respective country. In either case an advance copy of the application form should be faxed directly to the Office for Outer Space Affairs to **Ms. Ayoni Oyeneyin**, Office for Outer Space Affairs, United Nations Office at Vienna, Fax: +43-1-26060-5830

8. Life and health insurance

Life/major health insurance for each of the selected participants is necessary and is the responsibility of the candidate or his/her institution or Government. The co-sponsors will not assume any responsibility for life and major health insurance, nor for expenses related to medical treatment or accidents.

9. Points of contact

For information regarding the submission of nominations for attendance and funding, please contact **Ms. Ayoni Oyenyin**, United Nations Office for Outer Space Affairs, at the above address and fax number or at the following e-mail address: ayoni.oyenyin@unvienna.org

For information regarding the content of the training course, please contact **Ms. Sharafat Gadimova**, United Nations Office for Outer Space Affairs at the above address and fax number or at the following e-mail address: sharafat.gadimova@unvienna.org

The focal point for China will be **Ms. Wei Wei**, who can be contacted regarding local arrangements including the venue of the training course, arrival at Beijing, hotel accommodation, transportation to and from the hotel and other logistical details, at the following e-mail addresses: weiwei@nrsc.gov.cn or weiwei@cenc.org.cn and fax number: +86 10 82529490