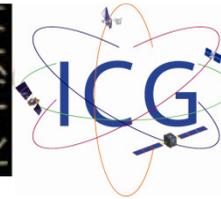




Office for Outer Space Affairs
United Nations Office at Vienna



International Committee on
Global Navigation Satellite Systems

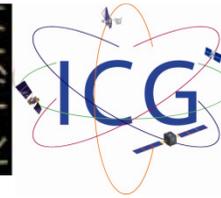
United Nations Programme on GNSS applications

Sharafat Gadimova
ICG Executive Secretariat
Office for Outer Space Affairs
United Nations Office at Vienna

***Sixth Meeting of the International Committee on
Global Navigation Satellite Systems***

5 – 9 September

Tokyo, Japan



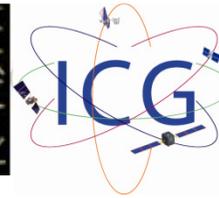
Programme on GNSS Applications

- u **Regional workshops on GNSS applications**
 - u **Training for capacity building in developing countries**
 - u **Promoting the use of GNSS technologies as tools for scientific applications**
 - u **International Space Weather Initiative**
- and**
- u **Executive Secretariat of the ICG and its Providers' Forum**



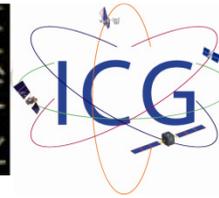
Regional Workshops on GNSS applications

- u ***Increasing awareness among decision and policy makers of the benefits of satellite navigation technology***
- u ***Strengthening regional information and data exchange networks with regard to the use of GNSS technology***
 - u ***Asia and the Pacific: Malaysia (2001), China (2006)***
 - u ***Europe: Austria (2001), Azerbaijan (2009), Moldova (2010)***
 - u ***Latin America and the Caribbean: Chile (2002), Colombia (2008)***
 - u ***Africa: Zambia (2002 and 2006)***
 - u ***Western Asia: United Arab Emirates (2011)***
- u ***United Nations International Meeting on GNSS Applications, 12 – 16 December 2011, Vienna, Austria***



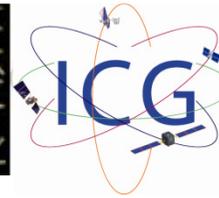
Training for capacity building in developing countries

- u ***Provide support to the regional centres for space science and technology education, affiliated to the United Nations, which would also act as the ICG Information Centres (ICG-3, 2008 and UN GA 64/86, 2009)***
 - u ***Africa: Morocco and Nigeria***
 - u ***Latin America and the Caribbean: Brazil and Mexico***
 - u ***Asia and the Pacific: India***
 - u ***Remote sensing and GIS; Satellite communications; Satellite meteorology and global climate; Space and atmospheric sciences***
- u ***Training courses on GNSS, 2008 – 2010***
 - u ***Basic concepts of GNSS***
 - u ***Applications of satellite navigation with special emphasis on location-based services***
 - u ***Practical exercises, including different types of GNSS receivers, both in stand-alone mode and integrated with communications systems, as well as Matrix Laboratory (MatLab) programme simulation***
 - u ***Strengthen networks in the region for exchange of information on the use of 4 GNSS***



Training for capacity building in developing countries

- u ***Development of GNSS Education Curriculum***
 - u ***Collection of information on GNSS curricula taught in selected universities that had a long tradition of teaching GNSS technology and its applications, including web-based distance learning programmes***
 - u ***Establishment of an Ad hoc Group of Educators and Experts on GNSS***
- u ***Structure of GNSS Education Curriculum***
 - u ***Duration: 10 weeks (150 hours of theory + 150 hours of laboratory experiments, field visits, project work)***
 - u ***Course prerequisite: Electronics and Communications Engineering***
 - u ***Proposal:***
 - u ***to address the topic of space weather (atmospheric modelling)***
 - u ***to invite system providers for the suggestions taking into account their current policies***
- u ***UN Meeting on GNSS applications, 12 – 16 December 2011, Vienna, Austria***
- u ***UN/Italy Long-term Fellowship Programme on GNSS and related applications: Masters' Programme, Turin, Italy***



Promoting the use of GNSS technologies as tools for scientific applications

u Regional reference networks

u AFREF: African Geodetic Reference Frame, 2005

u SIRGAS: Geocentric Reference System for the Americas

u EUPOS: European Position Determination System, 2008

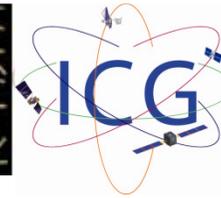
***u EUREF: International Association of Geodesy Reference Frame
Subcommission for Europe***

u APREF: Asia Pacific Reference Frame, 2010

u Workshops/seminars/training courses, 2008 – 2011

u To initiate space science research programmes in Africa

***u To develop common approaches and avoid duplication, as well as to define the
mechanism for the sharing of GNSS data from continuously operating reference
stations within regions***

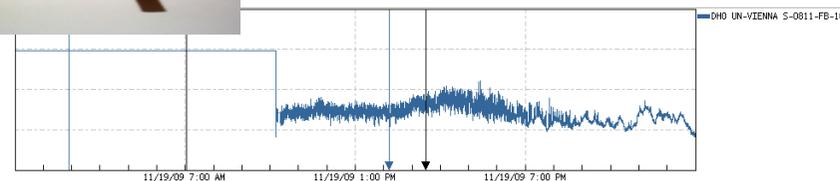


International Space Weather Initiative

- u ***A programme of international cooperation to advance space-weather science through instrument deployment and analysis and interpretation of space-weather data from the instruments deployed, in conjunction with other space data, and to communicate the results to the public and students (three-year workplan, UN GA 64/86, 2009)***
 - u ***To develop the insight necessary to understand the science involved and to reconstruct and forecast near-Earth space weather, including instrumentation, data analysis, modelling, education, training and public outreach***
 - u ***About 1, 000 space-weather instruments are operational and recording data by utilizing detectors and spectrometers***
- u ***With the installation of a Sudden Ionospheric Disturbance monitor (SID) in the permanent space exhibit at UNOV (November 2009), Vienna became one of the many sites worldwide reporting occurrences of solar flares***



Stanford Solar Centre, SID Data Access: www.stanford.edu



Executive Secretariat of ICG

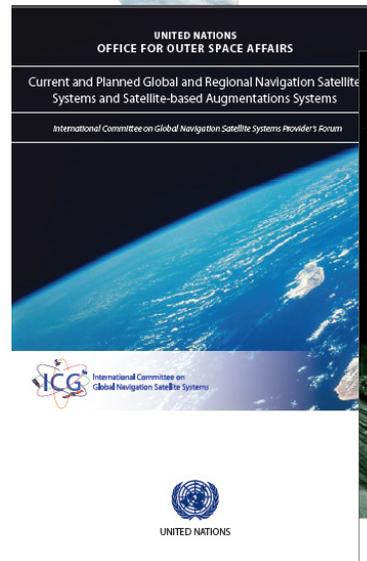
- u **Participate in and contribute to the international and regional meetings on GNSS**
- u **Assist in the preparations for the annual meetings of the ICG and its Providers' Forum, and for interim planning meetings**
- u **Manage the content and maintain the server of the ICG information portal to reflect developments in ICG and its Providers' Forum: www.icgsecretariat.org**
- u **Prepare and publish the ICG/GNSS related reports/documents**



The screenshot shows the UNOOSA website interface. At the top, it features the UNOOSA logo and the text "United Nations Office for Outer Space Affairs". Below this, there is a navigation menu with links such as "Home", "What's new", "Office for Outer Space Affairs", "Meetings Calendar", "Committee on the Peaceful Uses of Outer Space", "Programme on Space Applications", and "UN-SPIDER". A central banner displays the ICG logo and the text "International Committee on Global Navigation Satellite Systems" with the tagline "A forum to discuss Global Navigation Satellite Systems (GNSS) to benefit people around the world". Below the banner, there is a section titled "International Committee on GNSS" with sub-sections for "Providers Forum", "ICG Meetings", "Other Meetings and Events", "ICG Activities", "Regional Reference Systems", "International Space Weather Initiative", "Relevant Links", "Education Resources", "Publications", and "Videos". At the bottom, there are links for "Regional Centres for Space Science and Technology Education", "Space Law", "Register of Space Objects", "Addressing Climate Change", "Space Activities of States & International Organizations", "Space Activities of the UN System (UNCOSA)", and "Reports and Publications".

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

Following the [Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space \(UNISPACE III\)](#), held in 1999, in its resolution 54/68, the United Nations General Assembly endorsed the "Vienna Declaration: Space Millennium for Human Development". The Vienna Declaration called for action, among other matters, 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. In response to that call, in 2001 the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) established the Action Team on Global Navigation Satellite Systems (GNSS) to carry out those actions under the chairmanship of Italy and the United States of America. The Action Team on GNSS, consisting of 38 member States and 15 inter-governmental and non-governmental organizations, recommended, among other things, that an International Committee on GNSS (ICG) should be established to promote the use of GNSS infrastructure on a global basis and to facilitate exchange of information. The Committee included this recommendation in the Plan of Action proposed in its report to the General Assembly on the review of the implementation of the recommendations of UNISPACE III. In 2004, in its resolution 59/2, the General Assembly endorsed the Plan of Action. In the same resolution, the General Assembly invited GNSS and augmentation system providers to consider establishing an ICG in order to maximize the benefits of the use and applications of GNSS to support sustainable development ([A/AC.105/846](#)).



The image shows the cover of a report titled "Current and Planned Global and Regional Navigation Satellite Systems and Satellite-based Augmentations Systems". The cover features the United Nations logo and the text "UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS". Below the title, it says "International Committee on Global Navigation Satellite Systems Provider's Forum". At the bottom, there is the ICG logo and the text "International Committee on Global Navigation Satellite Systems".



The image shows the cover of a report titled "Current and Planned Global and Regional Navigation Satellite Systems and Satellite-based Augmentations Systems". The cover features a satellite in orbit above the Earth, with ground stations and a road with cars below. At the bottom, there is the ICG logo and the text "International Committee on Global Navigation Satellite Systems". Below the logo, it says "A forum to discuss Global Navigation Satellite Systems (GNSS) to benefit people around the world".

United Nations A/AC.105/982
General Assembly Dist.: General
10 November 2010
Original: English

Committee on the Peaceful
Uses of Outer Space

**Fifth Meeting of the International Committee on Global
Navigation Satellite Systems**
Note by the Secretariat

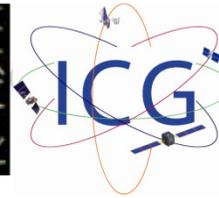
Contents

I. Introduction	Par.
A. Background	2
B. Structure and programme of the Meeting	3
C. Attendance	4
D. Scientific session and industry round table	4
E. Documentation	5
II. Recommendations and decisions	5
III. Solar transceiver	6
IV. Providers' Forum	6
Annexes	
I. List of States Members of the United Nations and governmental, intergovernmental and non-governmental organizations participating in the International Committee on Global Navigation Satellite Systems	12
II. Documents of the Fifth Meeting of the International Committee on Global Navigation Satellite Systems	13

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Office for Outer Space Affairs
United Nations Office at Vienna



International Committee on
Global Navigation Satellite Systems

United Nations Office for Outer Space Affairs
PO Box 500, 1400 Vienna, Austria

**Executive Secretariat of the
International Committee on
Global Navigation Satellite Systems**

Phone: +43 1 26060 4951
Fax: +43 1 26060 5830
E-mail: ooa@unvienna.org

UNOOSA Website: <http://www.unoosa.org>
ICG Information Portal: www.icgsecretariat.org
ISWI Website: www.iswi-secretariat.org