



SPACE GENERATION
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Youth for GNSS: Accomplishments & Growth

International Committee on GNSS (ICG-8)

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- Benefits of YGNSS and ICG Collaboration





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Concept of the “Space Generation” and SGAC Origins

SGAC Origins

- Conceived at the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) in Vienna in 1999
- 160 students and young professionals invited to contribute
- Product was the Vienna Declaration where the States resolved:

“To create, within the framework of the Committee on the Peaceful Uses of Outer Space, a consultative mechanism to facilitate the continued participation of young people from all over the world, especially young people from developing countries and young women, in cooperative space-related activities...”



SGAC Purpose

- Create a global volunteer base of university students and young professionals in the space sector who have a passion for making a difference in the space sector and a commitment to action
- Connect them to peers and top space professionals from various organisations
- Give the next generation of space sector leadership opportunities and a voice in global space policy





Basic Facts

SGAC is a non-profit organisation that represents 18-35 year olds in international space policy at the United Nations, at agencies, in industry, and in academia

- Founded as a result of the 1999 UNISPACE III conference
- SGAC has had permanent observer status in the UN COPUOS since 2001 and has been a member of the UN Economic and Social Council since 2003
- Is headquartered in Vienna, Austria and is hosted by the European Space Policy Institute
- SGAC has a volunteer network of more than 4,000 members in over 100 countries





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SGAC Products

Example SGAC Products

- Conferences
 - Space Generation Congress (SGC)
 - Space Generation Fusion Forum
- Year-round Projects
- Pragmatic Policy Suggestions
 - Reports to United Nations Committee on the Peaceful Uses of Outer Space
 - Recommendations from Space Generation Congresses
- Scholarships
- Special Projects
 - ISECG-NASA Videos
 - IAA Study Groups
 - European Space Expo
 - Other



Space Generation Congress

- The Congress is held annually in conjunction with the International Astronautical Congress
- Allows up to 130 of our top, selected members to congregate and network with each other and top space professionals
- Delegates work together on projects
- Speakers from the world's top space organisations and companies address the Congress



Space Generation Congress

- Projects are worked on by the attendees on some of the most relevant and up and coming space topics
- 2013's themes: Agency, Industry, Society, Exploration, & Earth Observation
- Products are presented at the International Astronautical Congress as well as throughout the year at conferences
- SGC 2013 in Beijing, China, 19 to 21 September



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IN SUPPORT OF THE UNITED NATIONS PROGRAMME ON SPACE APPLICATIONS

Space Generation Fusion Forum

- Held in conjunction with the National Space Symposium
- 50 top young adults from 20 countries from various areas of space – government, industry, & academia
- Panel discussions moderated by top international space sector leaders
- Output reported at the AIAA's Space 2012, at the National Space Symposium and at the UNCOPUOS



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Benefits to SGAC Partners

- Tangible reports or presentations from SGAC events
- Raising the profile of the organisation amongst an international group of the top incoming space young professionals
- Meeting and engaging with that group and gaining access to the SGAC international network
- Raising the profile of a issue important to the organisation in the international space community
- Publicity
 - Amongst the worldwide members of SGAC
 - At the UN (SGAC briefs the UN Committee on the Peaceful Uses of Outer Space)
 - To our partners, sponsors, alumni and subscribers of our newsletter





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YGNSS Background & Activities

Youth Global Navigation Satellite Systems (YGNSS)

Background

Global Navigation Satellite Systems are embedded in our daily life (mobile phones, GPS...), and now almost every country in the world has satellites on orbit to provide data to the users. However, there is a huge lack of information in the society about them.



Key Objectives

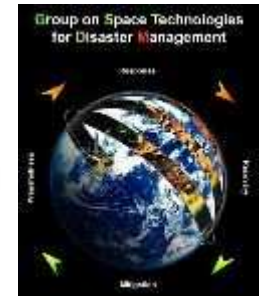
- Provide input to ICG, particularly on matters related to education and public outreach, and to act as a medium for information dissemination on GNSS
- Promote activities relating to cooperation in GNSS and GNSS applications
- Present the benefits of GNSS at various conferences around the world
- YGNSS supports the International Committee on GNSS (ICG), an international forum for cooperation on Global Navigation Satellite Systems recognized by the United Nations



GNSS and Earth Observation for Disaster Management Workshop (22 Sept 2013)



- Held after SGC, and prior to IAC in Beijing, China
- Collaboration with Space Technology for Disaster Management Project
- **Result:** Approximately 25 students and young professionals from 15 countries attended – learned more about GNSS technologies and implementation into their fields



- Focused on background of GNSS and EO technology and hands on learning (ArcGIS)
- Sponsorship from **Lockheed Martin** for several students to attend.
- **Success:** Planning to hold more workshops in the future in conjunction with other events

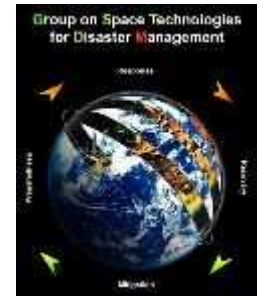


GNSS and Earth Observation for Disaster Management Workshop (22 Sept 2013)



COUNTRIES INCLUDED:

- Australia
- Austria/Hungary
- Brazil
- Canada
- China
- Germany
- Greece
- Italy
- Japan
- Mexico
- Nigeria
- Saudi Arabia
- South Korea
- United States
- Venezuela

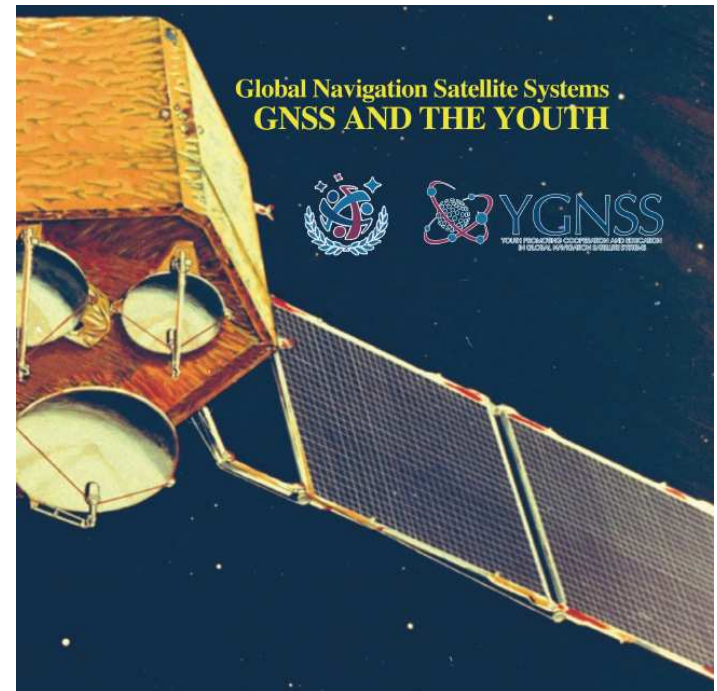


Speakers came from the Beihang University, George Washington University, UN-SPIDER, Mexican Space Agency.



Youth for GNSS Brochure – Updated!

- Original GNSS brochure created in 2010
- Information has been updated in English
- Translated to Chinese (Mandarin) and Arabic
 - English and Chinese copies distributed at IAC in Beijing
- Future translations on the way: Urdu, Persian, French, German, Spanish, and Polish
- Looking for other venues to share brochures



Linking SGAC Work to Working Group C 2012 Actions (1)

Training for Capacity Building in Developing Countries

Action C1: Establish and support education and training programmes related to satellite navigation and location-based services for purposes of building capacity in developing countries through the regional centres for space science and technology education affiliated to the United Nations and other centres of excellence.

- **Accomplishment:** SGAC has continued to support the education and training programs, especially targeting students and young professionals in developing countries.

- Examples include: YGNSS group consists of 10 members from 9 different countries. The workshop participants came from 15 countries, of which 6 were from developing countries. Furthermore, SGAC has supported members from developing countries via scholarships, thanks to Lockheed Martin and EIAST.

Action C2: Build upon the existing educational programmes [...] Further consideration should be given to onsite “hands-on/off: training programmes.

- **Accomplishment:** The GNSS and EO on Disaster Management Workshop included hands-on ArcGIS training, and worked closely with Beihang University to provide the facilities.



Linking SGAC Work to Working Group C 2012 Actions (2)

Promoting the Use of GNSS Technologies as Tools for Scientific Applications

- **Action C3:** Promote the use of GNSS technologies as tools for scientific applications in developing countries, with emphasis on Africa.
 - **Accomplishment:** SGAC has recently signed an MoU with ARCSSTE-E to further promote GNSS technologies and encouraging students and young professionals in Africa.

Regional Workshops on Applications of GNSS

- **Action C5:** Organize a series of workshops focusing on capacity-building in the use of GNSS in various areas of applications that support sustainable development.
 - **Accomplishment:** Highlighted previously, SGAC/YGNSS has organized a and well-attended workshop focused on GNSS application in disaster management. A report can be found on the SGAC website.



Linking SGAC Work to Working Group C 2012 Actions (3)

Information Dissemination

- **Action C6**: Identify recommended methods to quickly and efficiently distribute information available from GNSS systems to the public, governmental, scientific and commercial users of GNSS, including web-presence materials to document, and publicize the related activities.
 - **Accomplishment**: SGAC/YGNSS has produced an updated brochure highlighting the benefits of GNSS to the youth. It has been translated to Chinese and Arabic, with further plans to be translated to other UN languages in the near future. It was distributed at the SGC and at the SGAC booth IAC in Beijing, China.

SGAC has participated in ICG since 2008 (ICG-3) and has the network to reach a large international space “user community” demographic between ages 18-35.



Future Activities

- Create a GNSS competition
- Continue to translate YGNSS brochures to other languages
- Present technical papers at conferences
- Further public outreach and facilitating discussions on the importance of GNSS
- Continue to partner with other GNSS and space organisations to increase education and outreach of GNSS benefits



Summary: A Voice in Policy

- SGAC YGNSS project hopes to continue working with ICG
- Will present accomplishments to UN COPUOS
- Hope to work with other international organizations and academic institutions for GNSS collaboration



THANK YOU!

Ali Alizadeh – Iran
Ali Butt – Pakistan
Juan Duran – Spain
Veronica Hu – China
Etim Offiong – Nigeria

Ana Perez – Venezuela
Leila Qasemzade – Iran
Tee Takore – India/UK
Kasia Urbanska – Poland/France
Stephanie Wan – USA

For more information: www.spacegeneration.org/ygnss



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www.facebook.com/spacegeneration



www.youtube.com/spacegeneration

