



SPACE GENERATION
ADVISORY COUNCIL

Youth for GNSS

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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

- YGNSS supports the International Committee on GNSS (ICG), an international forum for cooperation on Global Navigation Satellite Systems recognized by the United Nations
- 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



Past Products

- Workshop on GNSS in Disaster Management – Beijing, China (hosted at Beihang University, sponsored by Lockheed Martin)
- International Astronautical Federation (IAF) Space Communications and Navigation Committee member
- Online Poll to learn about public’s knowledge on ‘GNSS’ and ‘GPS’
- Writing and Presenting technical conference papers
- Article “GNSS Interference: The Debate Rages On” in *GeoSpatial World*
- Space Generation Congress with GNSS-focused topics
- Active participation in ICG since 2008
- YGNSS Brochure
- Speaking engagements on GNSS applications



International Presence

- IAC (2008): Glasgow, Scotland
- ICG-3 (2008): Pasadena, CA
- IAC (2009): Daejeon, South Korea
- ICG-4 (2009): St. Petersburg, Russia
- IAC (2010) & UN/IAF Workshop: Prague, Czech Republic
- ICG-5 (2010): Turin, Italy
- IAC (2011): Capetown, South Africa
- ICG-6 (2011): Tokyo, Japan
- 22nd Economic Forum (2012): Krynica, Poland
- IAC (2012): Naples, Italy
- ICG-7 (2012): Beijing, China
- IAC (2013): Beijing, China
- ICG-9 (2013): Dubai, UAE
- GNSS Summer School (2014): Tokyo, Japan
- IAC (2014): Toronto, Canada
- ICG-10 (2014): Prague, Czech Republic



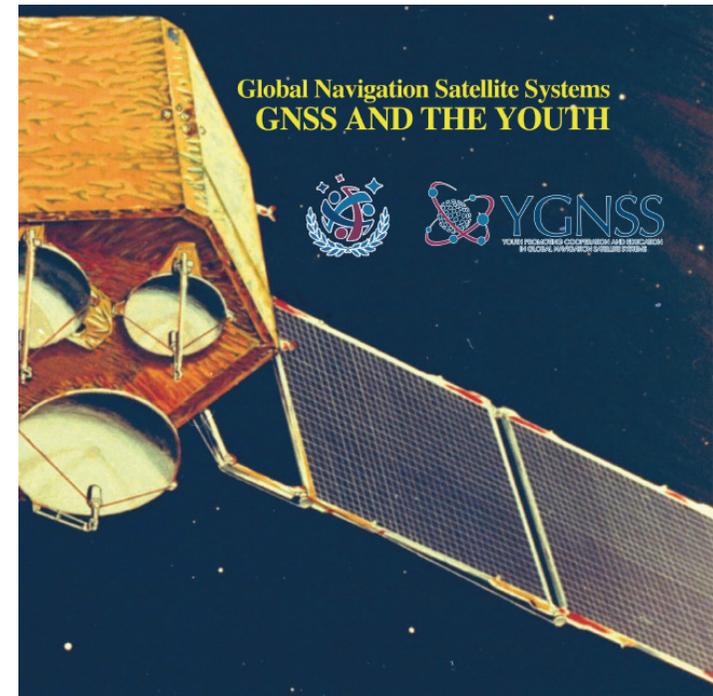
YGNSS in 2014

- IAC Conference Publication : “Challenges Faced by GNSS Today: An Overview”
 - Research project developed by YGNSS members on what are the hot topics powering the industry and academia today.
 - Objective: Outreach project to compile points of interest from which young professional can focus their career.
- Endorsement of Members
 - 4 new members in 2014: with additional co-leads from Spain (Juan Duran) & Venezuela (Ana Perez)
 - Endorsement of member for UN/ICTP Workshop on “Global Navigation on Satellite Systems for Satellite Applications” to be held Dec 2014 in Trieste, Italy
 - Endorsement of SGAC member to participate in the GNSS Summer School (July 2014) in Tokyo, Japan.



Youth for GNSS Brochure

- Original GNSS brochure created in 2010
- Information has been updated in English, Chinese (Mandarin), and Arabic
- Translations nearing completion: Spanish
- Looking for other venues to share brochures



Summary: A Voice in Policy

- Work with other international organizations and academic institutions for GNSS collaboration
- 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
- Expanding the scope to awareness in spectrum interference



THANK YOU!

Ali Alizadeh – Iran
Ali Butt – Pakistan
Juan Duran – Spain
Veronica Hu – China
Temidayo Isaiah – Nigeria
Lukas Lanneau – Belgium

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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Backup Slides

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.

