The Space Generation Congress 2010: Perspectives from University Students and Young Professionals in the Space Sector

The Space Generation Advisory Council in Support of the UN programme on Space Applications
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Basic Facts on SGAC

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

• Started 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
• SGAC has a volunteer network of about 4,000 members in 90 countries
Space Generation Congress 2010

- 101 delegates selected from 40 different countries and six continents to discuss top space policy issues
- 30 participants from 22 countries were given full scholarships
- 10 IAF Youth Grant winners
- Students and young professionals represented a wide spectrum of technical and non-technical space backgrounds
- Topics: Industry, Agency, Climate, Exploration, and Outreach
2010 SGC Speakers

Dr. Dmitriu Prunariu, Chairman of UN COPUOS

Berndt Feuerbacher, President of the International Astronautical Federation

Charles F. Bolden, NASA Administrator
Theme: Industry

The New, Increased Role of the Private Industry in the Space Sector

• The present: Remote Sensing, Microgravity Sciences, International Space Station, Telecommunications, GNSS, Launching

• The future: Space Tourism, Space Products, Orbital Cleanup, Microgravity Processing, On-orbit Satellite Servicing
Conclusions: Industry

- Space Generation Prize: Competition for the best new business idea developed by a person/group under the age of 35.

- Space Generation Award: For the best advancement towards space utilisation

- SGAC sponsored pro-commercialisation of space event

- SGAC strategic networking plan

- Media and public relations network dedicated to cover space issues

- Network to encourage retiring space professionals to consult with emerging space nations
Global Navigation Satellite Systems (GNSS) for Disaster Management

- Past disaster management systems, to identify limitations, to what extent emergency information is available in real time, types of information required and processes to develop a successful system

- Disaster phases (pre - disaster, during, post disaster) and necessary steps of a disaster management cycle, focusing on technical and policy challenges

- Issues regarding Global Navigation Satellite Systems and possible ways to overcome the legal challenges regarding personal data storage
Conclusions: Agency

• Create a universal GNSS software system

• Distribute a ground-based network to high risk regions and countries.

• Develop a mobile GNSS device to track and monitor crowds during a disaster

• Promote Community Remote Sensing (CRS)

• Encourage the International Committee on GNSS (ICG) to have discussions regarding disaster management

• Make GNSS data more available via a centralised database
Theme: Climate

Enhance Global Climate Data Exchange to Better Monitor Climate Change and Empower Policymakers, Scientists and the Community

• Data and metadata collection standards

• The contribution and responsibilities of nations to engage to climate studies, taking into account the underlying social and economical issues

• Current challenges of Earth observation data exchange and Community Remote Sensing (CPR)
Conclusions: Climate

• Establish a global agreement on data acquisition, continuity and exchange

• Create common standards for metadata and data sharing

• Encourage more stakeholders to involve in acquiring, processing and interpreting Earth observation data

• Create a new business model providing easy data access

• Develop low cost and small scale initiatives

• Create a SGAC working group on climate
Theme: Exploration

Examining the Feasibility of a Mission to Mars from the Perspective of the Young Generation

• Human missions to the Moon:
  - Necessities
  - Benefits

• Human missions to Mars:
  - Short-term, long-term missions
  - Technical and operational necessities
  - Financial, social, legal and political factors
Conclusions: Exploration

- Human exploration missions should be an international, collaborative effort.
- Associated educational programmes should be created to stimulate interest in technical careers
- The Moon should not be a necessary stepping stone for getting to Mars.
- Through SGAC, the youth should continue to exchange ideas towards creating “the road-map to Mars”
Theme: Outreach

Development of Science and Technology Education and Careers for the New Generation

- Lack of public awareness, encouragement and positive messaging
- Internationally lack of resources and stimulating opportunities for the young generation to be exposed to space.
- Space is not only rocket science for a selected, privileged few
Conclusions: Outreach

- Social networks should be used in the promotion of space activities
- Myths and stereotypes about space should be broken
- Women from the space sector should give talks in schools and encourage both girls and boys to involve with space
- Media should be encouraged to focus on space
- Competitions and outreach programmes should be easily adaptable for different cultures and geographic needs
- A SGAC Outreach Working Group should be established
Partners and Supporters

Anonymous

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A.C Charania, Peter Diamantis, James Moody, George Whitesides, and Juergen Schlutz
Thank You