



SPACE GENERATION ADVISORY COUNCIL

*in support of the United Nations
Programme on Space Applications*

2008 Annual Report

About the Space Generation Advisory Council (SGAC)

The Space Generation Advisory Council in support of the United Nations Program on Space Applications (SGAC) is a non-governmental organisation which aims to represent students and young space professionals to the United Nations, Nation States space agencies and other organisations in the space community.

SGAC has permanent observer status in the UN Committee on the Peaceful Uses of Outer Space (COPUOS). SGAC has a long history and was conceived at the Third United Nations Conference on the Exploration and Peaceful Uses of Space (UNISPACE-III) in Vienna in 1999. The SGAC Executive Council is made up of representatives from each of the six UN regions, and has a larger body of representatives from nation states. Our focus is on pragmatic space policy advice to policy makers based on the interests of the global community of students and young professionals, broadly in the age range 18-35, interested in space.



Contents

| | |
|--|----|
| About the Space Generation Advisory Council (SGAC) | 1 |
| Acronyms..... | 4 |
| Message from the Co-Chairs..... | 5 |
| Message from the Executive Officer | 6 |
| Executive Summary | 7 |
| SGAC Month by Month Highlights | 8 |
| Introduction..... | 9 |
| History of the Space Generation Advisory Council | 10 |
| SGAC Programmes..... | 11 |
| Goals and Strategy | 13 |
| Accomplishments in 2008 | 13 |
| Goals for 2009 | 13 |
| 2010 Targets..... | 13 |
| Involvement in COPUOS | 14 |
| Scientific and Technical Subcommittee..... | 14 |
| Legal Subcommittee | 15 |
| Involvement in the UN Economic and Social Council | 16 |
| SGAC Global Activities 2008 | 17 |
| January | 17 |
| February..... | 17 |
| March | 17 |
| April..... | 18 |
| May | 18 |
| June | 18 |
| July..... | 19 |
| August..... | 19 |
| September | 19 |
| October | 19 |
| November | 20 |
| December | 20 |
| Treasurer's Report..... | 21 |
| Communications & Public Relations Team Report | 22 |
| SGAC Leadership and Structure | 23 |
| SGAC External Organization Map | 23 |
| SGAC Internal Organization Map..... | 24 |
| SGAC Regional Reports..... | 25 |
| Maps of SGAC Regions and Represented Countries | 25 |



| | |
|--|-----|
| Africa..... | 26 |
| Asia Pacific | 34 |
| Europe | 48 |
| Middle East | 62 |
| North, Central America & the Caribbean..... | 68 |
| South America | 77 |
| Space Generation Congress 2008, Glasgow, Scotland..... | 88 |
| Congress Overview..... | 88 |
| Projects..... | 88 |
| IAC Participation | 89 |
| International Astronautical Federation Young Professionals Programme | 89 |
| UN IAF Workshop | 89 |
| Hightlighted 2008 SGAC Projects..... | 91 |
| Youth for Global Navigation Satellite Systems (YGNSS) | 91 |
| Next 50 Years Vision Project | 92 |
| Yuri's Night..... | 93 |
| Near Earth Object Group | 94 |
| Appendices..... | 95 |
| Appendix A: Financial Tables and Details..... | 95 |
| Appendix B: Additional SGAC Websites | 99 |
| Appendix C: SGAC 2008 Executive Team..... | 100 |
| Appendix D: SGAC 2008 National Points of Contact | 102 |
| Contact | 104 |



Acroynms

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| SGAC | Space Generation Advisory Council |
| UN COPUOS | United Nations Committee on the Peaceful Uses of Outer Space |
| UNISPACE III | Third United Nations Conference on the Exploration and Peaceful Uses of Space |
| RC | Regional Coordinator |
| NPOC | National Point of Contact |
| UNIDIR | United Nations Institute for Disarmament Research |
| OOSA | Office of Outer Space Affairs |
| ESPI | European Space Policy Institute |
| SGC | Space Generation Congress |
| IAC | International Astronautical Congress |
| LOC | Local Organizing Committee |
| IAF | International Astronautical Federation |
| SGF | Space Generation Forum |
| ISU | International Space University |
| ESF | European Space Federation |
| ESA | European Space Agency |
| ECOSOC | Economic and Social Council |
| ENSC | European Satellite Navigation Competition |
| ASF | Austrian Space Forum |



Message from the Co-Chairs

The Chairs are once again pleased to present the Annual Report of the Space Generation Advisory Council. 2008 has been a successful year for SGAC. Our annual congress was held in Glasgow, Scotland in September 2008. Various speakers attended including, Ambassador Ciro Arévalo, the Chair of UNCOPUOS. We are looking forward to our next congress to be held in Daejeon, Korea – later in 2009.

In April 2008, we bid fond farewell to Will Marshall the outgoing SGAC Chair having served a term of two years. Will's efforts, from the creation of SGAC to his work as Chair, have been essential to the continuing success of SGAC as an organisation and to the adherence to the vision on which it was founded. The current Chairs, Ben Baseley-Walker and Alex Karl, look forward to continuing to strengthen SGAC as the voice of international youth in space policy over the coming year.

Agnieszka Lukasczyk has continued in her role as Executive Officer in 2008 and her untiring efforts promoting our agenda in Vienna and around the world in addition to her role as the lynchpin of SGAC'S organisational framework has been a tremendous asset to the organisation. In addition to our core team, we have added several additional volunteers; one of special note is our Communications lead, Daniela Petrova.

In addition to our regular presence at three UNCOPUOS meetings this year, SGAC was represented at a variety of fora and conferences around the world including the 2008 UN Institute for Disarmament Research (UNIDIR) conference on Space Security. In April, the annual Yuri's Night was held with over 215 celebrations held around the world to share and educate the world about space. It was a tremendous success, indeed. As ever, we have continued to push for greater engagement of youth in the process of the creation and shaping future space policies at both the national and international level.

In many ways 2008 has been a year of consolidation for SGAC. We have spent time focusing on building stronger processes and foundations within our organisational structure which will allow us to carry out a greater number of high-quality topical projects in the future. As the current Chairs of SGAC we are delighted to say that the organisation continues to flourish after nearly ten years of existence. As we develop further, we believe that we become an ever stronger force encouraging, facilitating and promoting the voice of the space generation.

We would like to close by thanking Dr. Mazlan Othman, Director of the United Nations Office of Outer Space Affairs (OOSA), Ms. Alice Lee, Expert of Space Applications at OOSA, Ambassador Ciro Arévalo, Chair of UNCOPUOS and Prof. Dr. Kai-Uwe Schrogl of the European Space Policy Institute (ESPI) for their continued support of our endeavors. We look forward to a successful year ahead. Thank you for your continued support and engagement, and we wish you the very best from the Space Generation!

Alex Karl and Ben Baseley-Walker
SGAC Co-Chairs



Message from the Executive Officer

2008 has been an excellent year for SGAC. We have worked hard to create a solid base from which we can continue to grow sustainably. Major highlights for the year included the 7th annual space Generation Congress (SGC) in Glasgow and numerous supporting activities held throughout the 59th International Astronautical Congress (IAC). We were particularly encouraged to see our highest percentage of female delegates attending the conference at 46%. There has been a steady increase in the number of women attending SGC each year and we hope this trend continues. The accepted participants represented 43 countries and included representation from four different countries from South America, a new record for most countries from that region.

Our congress in 2009 will be held in Daejeon, Korea where we have been working very closely with the Local Organizing Committee (LOC) and we thank them for their support. We hope to see many delegates from the countries represented in COPUOS and we encourage delegations to support their young space enthusiasts in attending this stimulating event.

This year SGAC also organised an international youth technical paper competition to develop unique and innovative concepts for how to deflect an asteroid or comet which could impact the Earth (referred to as mitigation). The SGAC announced the competition results on the 100th anniversary of the last major impact of the Earth by an asteroid or comet, known as the Tunguska explosion. First place was awarded to Mary D'Souza from Australia and the second prize was given to Andrew Bacon from the UK. The winners were fully funded to attend the SGC and IAC in Glasgow where they presented their papers.

In partnership with the United Nations Educational, Scientific and Cultural Organization (UNESCO), SGAC organised an International Year of Astronomy (IYA) 2009 Essay Competition, which collected many essays from all around the world. The excellent entries highlighted the enthusiasm of the authors and their reflections on how astronomy enhances civil society in different parts of the world. The winners of the competition were Miftachul Hassana from Indonesia and Ajith S. Padmanabhan from India who were awarded with a fully funded travel to the International Year of Astronomy 2009 Opening Ceremony in Paris. UNESCO also kindly extended the invite for the winners to participate in the International Astronomical Union's Symposium on the "Role of Astronomy in Space and Society" taking place in Paris.

Success for SGAC is determined by a higher quality of participation, more often, by more young professionals. We will strive to facilitate this by sourcing funding, negotiating attendance, providing training and review for delegates and promoting these opportunities to a wide and diverse audience of young professionals.

Agnieszka Lukaszczyk
SGAC Executive Officer



Executive Summary

- **Organizational Development**

- Finances: Close of business year (December 31st, 2008) statements reflect a positive balance of €23,793.68
- Team Changes:
 - Will Marshall completed his two-year term as co-chairman and Ben Baseley-Walker was elected as new chairman
 - Daniela Petrova joined as Public Relations and Communications Lead
 - Seven new Regional Coordinators were added
 - Many new National Points of Contact were added
- Regulation: Rules of Procedure for representing SGAC adopted in July 2008

- **Space Generation Congress**

- The 7th Annual SGC was held September 25-27, 2008 in Glasgow, Scotland
- Delegate statistics
 - 174 applicants – 122 offered positions – 45 delegates attended
 - Attending delegates represented 18 different countries
 - 46% of attendees were women, a record percentage
- Nine projects relating to the future of human activity in space were worked on
- Highlights of the project work include:
 - Eight of the nine groups presented to the IAC
 - Plans to publish a book
 - Expand the scope of Yuri's Night and World Space Week
- SGAC had continued participation in the International Astronautical Congress and the United Nations / International Astronautical Federation Workshop

- **Project Work**

- YGNSS (Youth for Global Navigation Satellite Systems/Why GNSS?) project added in April
- Part II of the 50 Years Visions was completed
- Yuri's Night continued to grow with another record breaking year

- **Regional Roundup**

- Africa: Despite continual communication challenges, 14 countries are now represented and many outreach activities were organised
- Asia Pacific: The burgeoning space region has made strong contributions to SGAC by taking leadership roles in projects, publications and presentations
- Europe: The region held a successful European Summit and expanded the SGAC name through feature publications in magazines and presentations
- Middle East: The region saw a fresh influx of new Regional Coordinator (RC) leadership inspiring a wave of National Point of Contact (NPOC) recruitment and many local regional activities
- North, Central America and the Caribbean: The region started a project, InspireSpace, and expanded the SGAC network through Web 2.0 means
- South America: The region began holding Latin American Virtual meetings and organised many well-attended education and outreach activities



SGAC Month by Month Highlights

January:

- A new African RC is elected to the SGAC team
- A new intern from Spain joins SGAC office in Vienna
- The Austrian NPOC organises an outreach event at the Vienna University Institute of Sinology

February:

- A statement and technical presentation are presented at the UN COPUOS Scientific and Technical Subcommittee in Vienna
- SGAC is featured in *Spaceflight Magazine*

March:

- SGAC Co-Chair serves on a panel the United Nations Institute for Disarmament Research (UNIDIR) in Switzerland
- SGAC European Space Summit is held in Denmark
- Indian NPOC presents SGAC's 50 Years Vision project at the Royal Astronautical Society in the United Kingdom

April:

- The largest Yuri's Night to date with more than 200 worldwide events is held
- SGAC ECOSOC representatives attend meetings at the UN in New York
- A new Co-Chairman is elected
- A European and an African RC are elected to the SGAC team

May:

- Members participate in the European Satellite Navigation Competition

June:

- The inaugural Move an Asteroid technical paper competition draws applications from around the world including a winning entry from Australia
- 51st Session of COPUOS at the United Nations is strongly attended by SGAC members who gave multiple statements and presentations
- South American RC represents SGAC at the Workshop on the Applications of Global Navigation Satellite Systems in Colombia

July:

- Adoption of the Rules of Procedure adds structure to SGAC

August:

- Executive Officer presents at the ISU Summer Space Program in Spain

September:

- Delegates from 20 countries attend SGC 2008 in Scotland

October:

- World Space Week events internationally organised and attended by SGAC

November:

- American SGAC member presents to the International Lunar Exploration Working Group
- A new RC from Asia Pacific joins the Executive Council

December:

- South American RC helps coordinate the Venezuelan Water Rocket Competition
- A new RC from North America and two new Middle East RCs join the SGAC team

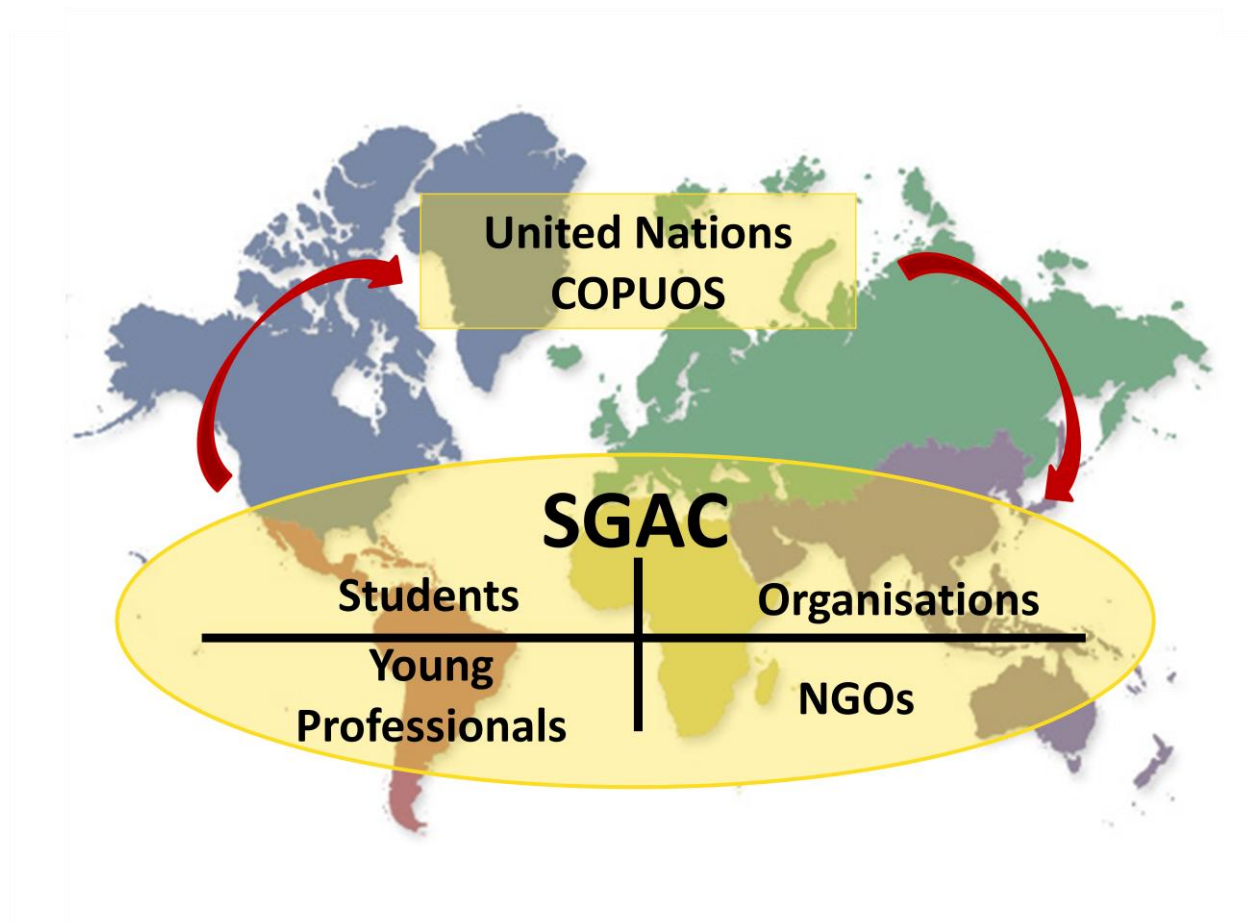


Introduction

The SGAC is a non-governmental organisation, which brings the views from its members to and works with: the United Nations, Space Agencies and other organisations. Members mainly comprise of students and young space professionals; as such engages young people into the current issues associated with space policy.

More broadly, the Space Generation identifies a large group of young (minded) volunteers who have an interest in space and an ambition to act. In fact, the Space Generation Network is "the biggest, global, space youth network". We know that by working together, we can make a difference.

SGAC has obtained permanent observer status in COPUOS and is a member of the International Astronautical Federation (IAF). The SGAC carries out policy projects -- writing papers to present to the UN and Space Agencies -- as well as conduct projects -- such as in the areas of space education and outreach. We advocate for space exploration and try to motivate others in our generation to be interested in space.



The interaction between the SGAC, its member organisations and people, and the flow of information between UN COPUOS

History of the Space Generation Advisory Council

As part of UNISPACE III¹, alumni of the International Space University² (ISU) organised and convened the Space Generation Forum (SGF)³. The aim of the forum was to express the visions and perspectives of youth with regards to future space activities. This evolved to include a youth input into the deliberations of the UN at UNISPACE, and was charged to make recommendations to UNCOPUOS. Over 160 young people from 60 countries attended the forum, which ran parallel to the UNISPACE III proceedings.

One of the recommendations was *"To create a council to support the United Nations Committee on the Peaceful Uses of Outer Space, through raising awareness and exchange of fresh ideas by youth. The vision is to employ the creativity and vigor of youth in advancing humanity through the peaceful uses space"*.

Five (*) of the top ten recommendations from the SGF Technical Report⁴ were integrated into the Vienna Declaration on Space & Human Development⁵:

- A Global Space Education Curriculum
- **Priority Access to Mobile Satcom Network for Disaster Emergency Management***
- International Space Authority
- **SGF Follow-up***
- **Establishment of an International Centre for Space Medicine***
- International Space Chamber of Commerce
- **Action Plan for Meeting the World's Basic Needs through Technology***
- Nobel Space Prize
- **UN Space Advisory Council***
- Planetary Defense/Protection

¹ UNISPACE III <http://www.un.org/events/unispace3/>

² International Space University (ISU) <http://www.isunet.edu/>

³ Space Generation Forum <http://sgf.unsgac.org/>

⁴ SGF technical report

<http://www.spacegeneration.org/downloads/documents/UN/sgf-technical-report-july-1999.pdf>

⁵ Vienna Declaration on Space & Human Development

<http://www.unoosa.org/pdf/reports/unispace/viennadecle.pdf>



SGAC Programmes

Space Policy

Past SGAC achievements include the Vienna Declaration (1999), creation of Latin-American Space Association ALE (2000) and the Space Association of Turkish States SATS (2001), Space Policy Summit SPS (2002) and the EU Green Paper Submission (2003).

In 2008 SGAC continued to have an observer presence and input to COPUOS at the 51st Session in Vienna in June, the Scientific and Technical Subcommittee in February and the Legal Subcommittee in March.

Space Education & Outreach

During 2008 many SGAC members were on the receiving end of various space education programmes, while others who have recently completed their studies have gone onto contributing to space education. Space Outreach was common between SGAC members worldwide! Major programmes included SGAC students in the ISU SSP 2008 in Barcelona, Spain, ADAM, Yuri's Nights, Cosmos Education along with many SGAC members participating in and/or organising space education and outreach events in their respective countries. In addition, in 2008 SGAC was able to obtain funding for several students from the developing countries to attend international conferences and workshops such as the SGC, IAC, UN/IAF workshop in Glasgow, Scotland, and the UN workshop in Vietnam.

International Cooperation

International Cooperation is more of a deeply embedded philosophy than a programme. SGAC Members have worked together to advance space projects more efficiently - time and money was saved by not reinventing the wheel!

The global network enabled many proven concepts to be brought from one country to another and international collaboration was enhanced.

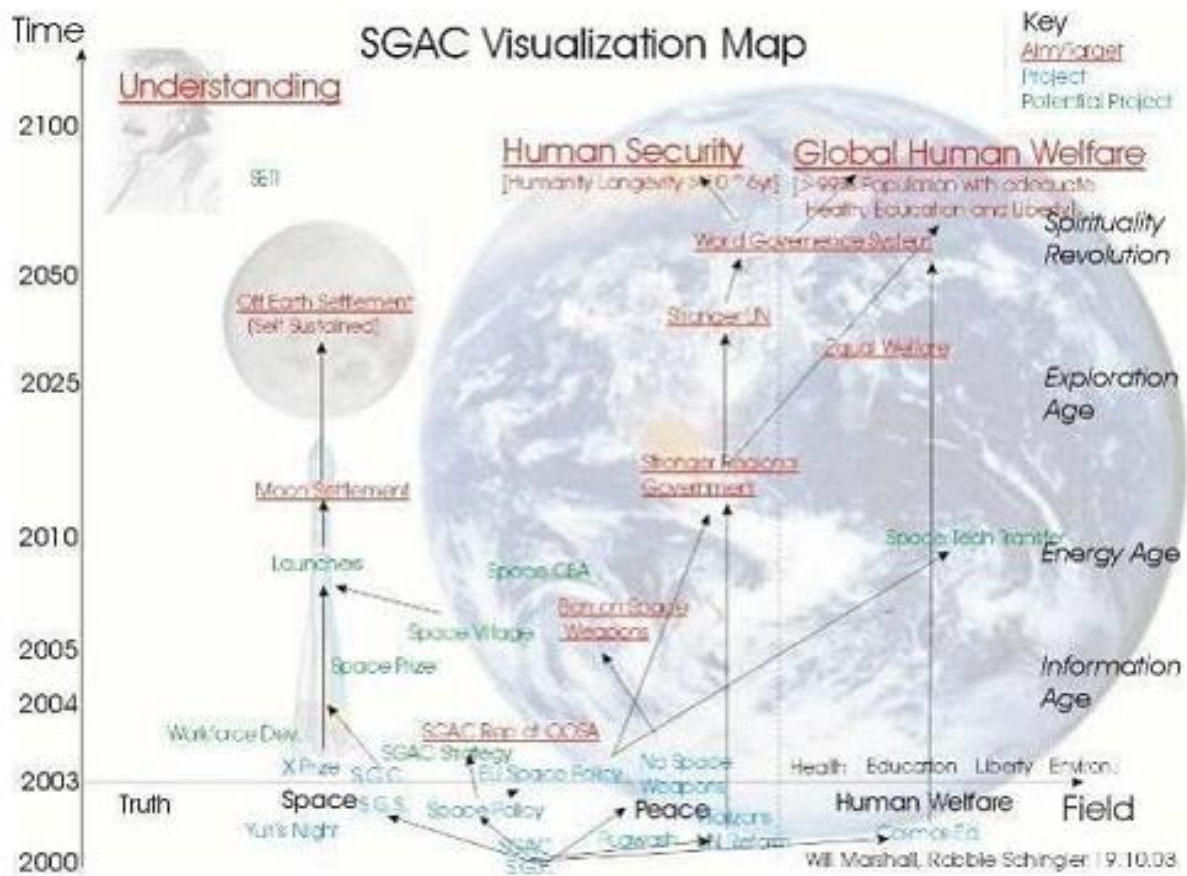
Space Generation Network

The Space Generation expanded significantly in 2008 with the addition of many new Points of Contact around the world. At the end of 2008, links are now fostered between 68 countries worldwide. Significant discussions were held on the SGTALK mailing list and connections were made between individuals and groups for international collaborations as a result of this. New posters and fliers were designed and distributed in Glasgow.

Archives of all the TALK emails can be found at <http://lists.spacegeneration.org/pipermail/talk/>

In addition, a new official website has been created, which greatly facilitates communication among the SGAC members.





SGAC Timeline from 2003 onwards

Goals and Strategy

Accomplishments in 2008

1. 50 Visions for Space, Part II: a comprehensive survey of youth visions
2. Expanded our regional network: new regional coordinators and have 68 National Points of Contact
3. Attended and made statements at all COPUOS meetings and strengthened ties with UN OOSA
4. Featured in numerous publications
5. Hosted and co-hosted several events, including:
 - a. Space Generation Congress, Glasgow, Scotland
 - b. Yuri's Night
 - c. SGAC European Summit
 - d. World Space Week events around the world
 - e. Numerous regional events
6. Attended and contributed to the following events:
 - a. IAF Spring Meeting, Paris, France
 - b. COPUOS Scientific and Technical subcommittee, Vienna, Austria
 - c. COPUOS Legal subcommittee, Vienna, Austria
 - d. COPUOS General Assembly, Vienna, Austria
 - e. IAC, Glasgow, Scotland
 - f. 18th UN/IAF Workshop held in Glasgow, Scotland
 - g. ESF/ESA/ESPI Conference Humans in Outer Space, Vienna, Austria
 - h. UNIDIR Conference, Geneva, Switzerland
 - i. 12th ISU Symposium, Strasbourg, France

Goals for 2009

Increased Representation

1. Be represented at more meetings by more young professionals
2. Improve relationship with space agencies
3. "Re-launch" at Space Generation Congress 2009 in Daejeon, Korea

Strengthened Network

4. Rejuvenate the NPoC and RC network
5. Constitute an Advisory Board
6. Improve organisation of country and issue events

Robust Administration

7. Incorporate SGAC USA into organisational structure of SGAC International
8. Recruit and hire a new Executive Director
9. Improve support for the SGAC Communications Director

2010 Targets

1. Creating permanent space agency relationships
2. Contributing consistently to COPUOS
3. Developing sustainable funding
4. Working towards greater on-line community, including recruiting a full time website coordinator
5. Producing policy input at all regional, national & international levels
6. Having SGAC staff working at the World Space Authority



Involvement in COPUOS

The Committee on the Peaceful Uses of Outer Space (COPUOS) was set up by the General Assembly in 1959 to review the scope of international cooperation in the peaceful uses of outer space, to devise programs in this field to be undertaken under United Nations auspices, to encourage continued research and the dissemination of information on outer space matters and to study legal problems arising from the exploration of outer space. COPUOS and its two Subcommittees each meet annually to consider questions put before them by the General Assembly, reports submitted to them and issues raised by the Member States. The Committee and the Subcommittees, working on the basis of consensus, make recommendations to the General Assembly.

The United Nations Office for Outer Space Affairs (OOSA) implements the decisions of the General Assembly and of the Committee on the Peaceful Uses of Outer Space and its two Subcommittees, the Scientific and Technical Subcommittee and the Legal Subcommittee. The Office is responsible for promoting international cooperation in the peaceful uses of outer space, and assisting developing countries in using space science and technology. Located in Vienna, Austria, OOSA maintains a website at <http://www.unoosa.org/>.

UN COPUOS held its fifty first session in Vienna, Austria, from 11 to 20 June. SGAC Executive Officer, Agnieszka Lukaszczyk gave the Space Generation's statement. Central to the statements were the recent activities and projects of SGAC such as the address the United Nations Institute for Disarmament Research (UNIDIR) annual conference on space security, under the theme of providing security for the Next Generation; the international youth technical paper competition to develop unique and innovative concepts for how to deflect an asteroid or comet that could impact the Earth (referred to as mitigation); and a study concerning the Applications of Global Satellite Navigation Systems.

At the 51st session of the UN COPUOS SGAC also made two technical presentations. One was delivered by Johanna Catena who presented on behalf of SGAC on the topic of Space Traffic Management. The second was given by, SGAC Regional Coordinator for Asia Pacific, Bijal Thakore of India, on disaster management using space technology.

Scientific and Technical Subcommittee

The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its forty-fifth session in Vienna from 11-22 February 2008. The SGAC Executive Officer, Agnieszka Lukaszczyk made a statement during to the subcommittee. Focus of the statement were SGAC's highlights of the past year in which priority attention has been given to rejuvenating SGAC membership (including officers) and starting new projects.

In addition SGAC made two technical presentations. The first presentation titled: "Bridging the Gap or Why Students of the 21st century No Longer Reach for the Stars" was given by Alexandra Ruths and Paul Schmitzberger of SEDS Austria. In Addition, SGAC Chair, Alex Karl, made a technical presentation titled "NEOs – A Youth Perspective."



Legal Subcommittee

The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its forty-seventh session in Vienna from 31 of March to 11 of April 2008. It was attended by the Executive Officer, Agnieszka Lukaszczyk. SGAC did not make a statement during this session of the subcommittee.

Involvement in the UN Economic and Social Council

ECOSOC was established under the United Nations Charter as the principal organ to coordinate economic, social, and related work of the 14 UN specialized agencies, functional commissions and five regional commissions. The Council also receives reports from 11 UN funds and programmes. The Economic and Social Council (ECOSOC) serves as the central forum for discussing international economic and social issues, and for formulating policy recommendations addressed to Member States and the United Nations system. It is responsible for:

- promoting higher standards of living, full employment, and economic and social progress;
- identifying solutions to international economic, social and health problems;
- facilitating international cultural and educational cooperation; and
- encouraging universal respect for human rights and fundamental freedoms.

It has the power to make or initiate studies and reports on these issues. It also has the power to assist the preparations and organisation of major international conferences in the economic and social and related fields and to facilitate a coordinated follow-up to these conferences. With its broad mandate the Council's purview extends to over 70 per cent of the human and financial resources of the entire UN system.

Since 2003, SGAC has had Consultative Status at UN ECOSOC. In 2008, SGAC attended two ECOSOC events at the UN in New York: the General Assembly Thematic Debate on the Millennium Development Goals, and a Millennium Project workshop and reception hosted by the United Nations Foundation.

SGAC only observed in the General Assembly debate on the Millennium Development Goals and Millennium Project workshop. While the General Assembly addressed higher level topics, the workshop featured presentations by the co-founders of The Millennium Project (TMP), Jerome C. Glenn and Theodore J. Gordon, and was chaired by the Director of the UNESCO office in New York, Helene-Marie Gosselin. The Millennium Project, which operates under the auspices of the World Federation of UN Associations (WFUNA), is a “global participatory futures research think tank of futurists, scholars, business planners, and policy makers who work for international organisations, governments, corporations, NGOs, and universities” and is perhaps best known for its annual ‘*State of the Future*’ report. The purpose of the seminar was to introduce participants to contemporary futures research methods such as those developed by TMP, to present the results of TMP’s review of 23 government futures strategy units, and to begin a discussion about the possibility of creating an Intranet to connect government and UN future strategy units with one another in order to improve global strategic research and planning. Such an Intranet, the presenters argued, would assist the UN and its member Nations in addressing the Millennium Development Goals and other issues.

Maite Trujillo, Ulf Livoff, and Andrew Hoppin
SGAC ECOSOC Representatives



SGAC Global Activities 2008

January

- **One new Regional Coordinator joins the SGAC team:** Castory Ntullu of Tanzania was elected as RC of Africa.
- **New intern joins SGAC office in Vienna:** Marc Sabadi of Spain joined the SGAC team to work on the Annual Report 2007.
- **Participation in Vienna University Institute of Sinology outreach event:** On January 15 the Vienna University Institute of Sinology hosted local young space enthusiasts in an outreach event. The event was organised by the SGAC Austrian NPOC Austria, Manfred Steinkellner. Professor Johannes Ortner, who encouraged all space young enthusiasts to continue with their activities and ambitions in Space, delivered the opening speech. Following, Nassim Bovet from the ISU talked about the opportunities offered by the institution.

February

- **Participation in UN COPUOS Scientific and Technical Subcommittee:** On February 18th, Co-Chairman, Alex Karl made a presentation under the Near Earth Objects agenda item of the UN COPUOS Scientific & Technical Subcommittee. Alex had been leading the SGAC working group on NEO's, which has been actively contributing to the UN COPUOS Action Team 14 on the Near Earth Objects. During the Scientific & Technical Subcommittee he presented the "NEOs – A Youth Perspective".
- **SGAC featured in *Spaceflight Magazine*:** February's issue of *Spaceflight Magazine* - the Society's magazine of astronautics and outer space - featured an article written by SGAC UK National Points of Contact, Rishi Sharda and European RC, Angela Whiteside.
- **Participation in ISU's 12th Annual Symposium:** Agnieszka Lukaszczyk, SGAC Executive Officer and Bijal (Bee) Thakore, Regional Coordinator for Asia-Pacific at SGAC both participated and presented the youth perspective on Space derived solutions at the 12th Annual Symposium of the International Space University on 'Space Solutions for Earth's Global Challenges' held from 20-22 Feb 2008. Agnieszka's talk on 'How aware are we?' featured the knowledge of young people on how space technology can address the global issue of food security. Bee's talk closed off the symposium's policy and legal session providing the audience with the world space youth's visions of the next 50 years on how space can help us derive solutions in line with the United Nation's Millennium Development Goals.

March

- **Presentation at the United Nations Institute for Disarmament Research (UNIDIR):** Alex Karl, Co-Chair of the Space Generation Advisory Council addressed the UNIDIR annual conference on space security, under the theme of providing security for the Next Generation. The Conference took place from 31 March to 1st April 2008. UNIDIR is an autonomous institute within the United Nations which is conducting research on disarmament and security with the aim of assisting the international community in their disarmament thinking, decisions and efforts, particularly in the frame of the Conference on Disarmament (CD)



- **SGAC European Coordination Meeting:** A total of nine European SGAC members met in Copenhagen for a weekend to discuss SGAC issues and brainstorm potential future SGAC plans.
- **Presentation at the Royal Astronautical Society in the United Kingdom:** The South West region of the UK with over 700 aerospace companies plays a key role in the British Aviation and Space Industry. Bee Thakore recently presented the visions of the world youth to members of the Royal Astronautical Society, identifying key areas young people can work on and support UK's future activities in the space sector.
- **Participation in UN COPUOS Legal Subcommittee:** The Legal Subcommittee was attended by the Executive Officer, Agnieszka Lukaszczuk. SGAC did not make a statement during this session of the subcommittee.

April

- **Largest Yuri's Night worldwide to date:** Worldwide, there were 198 total events, in 50 countries on all 7 continents. This year SGAC played a major role in hosting the largest Yuri's Night event at NASA Ames Research Center near San Francisco, California. The Yuri's Night at Ames was a 12 hour long event with nearly 100 science, art, technology exhibitors all related to the theme of the event, "Radical Technology for a Sustainable Future." There were 30+ musical performances and 15+ non musical performances performing on 4 stages plus 20 speakers throughout the event.
- **Participation at the UN in New York:** Two SGAC delegates, Andrew Hoppin and Ulf Livoff attended a high level meeting the 1st and 2nd of April 2008, to evaluate if attendance is beneficial to SGAC and its members and furthermore better enables SGAC to support UN activities.
- **New Co-Chairman elected:** Ben Baseley-Walker was elected Co-Chairman for a two-year term after Will Marshal served out his term.
- **Two new Regional Coordinators joining the SGAC team:** Angela Whiteside of the United Kingdom was elected RC of Europe and Michael Kio of Nigeria was elected RC of Africa.

May

- **Member participation in the European Satellite Navigation Competition:** Supported by ESA through its Technology Transfer Programme Office, the 2008 European Satellite Navigation Competition (ESNC) was inaugurated on 1 May. Now in its fifth year, the competition sought quick-to-market innovative ideas for the use of satellite navigation in non-space businesses.

June

- **Move an Asteroid Competition:** international youth technical paper competition to develop unique and innovative concepts for how to deflect an asteroid or comet that could impact the Earth (referred to as mitigation). Financial support for this competition is provided by Northrop Grumman Corporation, Lockheed Martin Corporation, SpaceWorks Commercial, and The Planetary Society. First place in the competition is awarded to Mary D'Souza of the Department of Mechanical Engineering at the University of Queensland in Australia for her paper entitled "A Body Solar Sail Concept for the Deflection of 99942 Apophis."

- **51st Session of COPUOS at the United Nations:** SGAC made multiple presentations including the general statement, a statement on new frameworks for Space Traffic Management, and a statement on space aid in disaster management.
- **Participation in Workshop on the Applications of Global Navigation Satellite Systems:** Paul Acquatella, SGAC RC for South America represented SGAC as a fully funded participant at the United Nations/Colombia/United States of America Workshop on the Applications of Global Navigation Satellite Systems, Medellín, Colombia, 23 - 27 June 2008

July

- **Adoption of SGAC Rules of Procedure:** Rules on the proper procedure for representing SGAC were announced. Among other content was the rule that all international/regional/national representation of the organisation should be coordinated through the Executive Office and if necessary the Co-Chairperson

August

- **Participation in the ISU Summer Space Program 2008:** SGAC Executive Officer, Agnieszka Lukaszczyk, presented "Youth Contributions to the Debate on Space Security" at the Space Security Theme Day organised by the ISU Summer Space Program (SSP), which took place in Barcelona, Spain.

September

- **Space Generation Congress 2008 in Glasgow, Scotland:** From September 25th to 27th, 40 delegates from 20 countries around the world gathered to work on seven of SGAC's ongoing projects. Guest speakers included the chair of the COPUOS, Ambassador Ciro Arévalo Yepes, and IAF president, James Zimmerman, as well as numerous leading scientists in the space field from both the private enterprise sector and the leading space agencies. All seven projects were presented at the Technical Sessions of the 59th International Astronautical Congress, which was held two days later at the Scottish Exhibition Cultural Centre.
- **Participation in the UN/IAF workshop:** UNOOSA and the IAF jointly organised a Workshop on the theme "Integrated Space Technology Applications - Support to Managing Potentially Hazardous Events", from 26 to 27 September, 2008. The Workshop was held in conjunction with the 59th IAC. This Workshop was the eighteenth meeting jointly organised by UNOOSA and the IAF. It builds upon the recommendations and experience gained from previous workshops.

October

- **World Space Week events around the world:** SGAC members all around the world participated in World Space Week events from October 4th to 10th. In particular, Austrian Space Forum (ASF) organised together with the help of SGAC a World Space Week event at the United Nations in Vienna, Austria. Agnieszka Lukaszczyk, Maryam Aljoan, and Alex Karl from the Space Generation, as well as former SGAC-founding members Norbert Frischauf and Gernot Groehmer who both now represent ASF were present and actively involved in the event. A total of 100 local school children were invited to the UN to

participate in this year's World Space Week celebrations at the home of UN OOSA and UN COPUOS. A patch of Mars was set up near the main entrance to the UN building which also attracted several UN diplomats to stop by and take a look. The Director of UN OOSA, Ms. Mazlan Othman attended the celebration as well.

November

- **Participation in the Conference on the Fair and Responsible Use of Space:** More than 60 high-ranking professionals gathered at the European Space Policy Institute (ESPI) to develop new perspectives and approaches to the fair and responsible use of outer space. The two day conference entitled “The Fair and Responsible Use of Space: An International Perspective” was held by ESPI with the Secure World Foundation (SWF), represented by its Executive Director Ray Williamson and the International Academy of Astronautics (IAA) represented by its Secretary General Jean-Michel Contant. The output was entitled “10 steps to achieve the fair and responsible use of outer space.”
- **Participation in the International Lunar Exploration Working Group:** SGAC's Amelie Sinclair attended the 10th annual ILEWG conference. The 10th annual ILEWG joint meeting highlighted scientific progressions into the upcoming lunar explorations. Amelie was given the opportunity to address the working group on space policy and brought forward suggestions for an integrated and treaty level perspective.
- **One new Regional Coordinator joining the SGAC team:** Muhammad Shafiq of Pakistan was elected RC of the Asia Pacific region.

December

- **Venezuelan Water Rocket Competition:** 2nd water rocket competition was held in the University Simon Bolivar (Caracas, Venezuela) This activity was coordinated by the USB Space Sciences Group, Professor Sabater, Eduardo Greaves and Paul Acquatella - current SGAC Regional Coordinator for South America. Students from “Los Arcos” School and the Simon Bolivar University participated with creative rockets and the winner of this competition was Alejandro Calvanese whose rocket reached 36 meters.
- **Three new Regional Coordinators (RCs) joining the SGAC team:** Israel Ojeda of Mexico was elected RC of North, Central America and Caribbean region and Mahsa Taheran of Iran and Aysegül Tansen of Turkey were elected RCs for the Middle East region.



Treasurer's Report

From a financial perspective, 2008 was a particularly good year for SGAC. The organisation was able to move away from struggling with cash flow and make some strategic financial decisions.

Our banking has moved to a lower-cost and more versatile provider in Bank Austria. We have cut costs on contracted staff and no longer pay rent for the Executive Officer's apartment in Vienna directly. Long-term liabilities carried over from as early as 2006 were paid off and the organisation has its regular payments under control.

Income for the year came from sponsorship agreements with the Secure World Foundation and Lockheed Martin as well as SGC sponsorship and registration fees. SGC 2008 was a financial success, contributing around € 4,600 profit to the organisation.

In November, the executive team met with an accountant and financial advisor in Vienna who provided some much needed clarification of our accounting practices and welcome nod that we are doing the right thing financially.

At the close of 2008, the balance sheet shows SGAC in the strongest financial position since its inception and this has allowed the executive to draft a fully-costed budget for operations during 2009.

Please refer to Appendix A for further information and data relating to the balance sheets for 2008

Michael Brett
SGAC Treasurer

Communications & Public Relations Team Report

The SGAC Communications & Public Relations Team was officially restructured at Space Generation Congress 2008 to its present form in order to meet the new challenges of SGAC's growing membership and activities. The mission of the team is to facilitate the interaction within SGAC and without in order to promote more efficient operation and development of the council.

Since its establishment, the team has been gradually growing. In 2008, the team consisted of two regular voluntary members: Daniela Petrova (Team Lead) and Alexandra Ruths (Assistant Newsletter Editor).

During 2008 the Communications & Public Relations Team set new records in the inputs to the monthly SGAC Newsletter and has succeeded in developing two new sections: *Changing World* and *SGAC Projects*. Towards this purpose it has also successfully recruited two dedicated columnists that will begin in 2009, Talia Page and Shrrirup Nambiar.

Presently the team is preparing to launch a new quarterly report series under the title of the dedicated Newsletter column, *Changing World*, in order to promote awareness of current interdisciplinary developments related to space and increase outreach. Moreover, this will enhance liaisons between SGAC members and a wide network of specialist organisations in a variety of fields. The report series will have a new dedicated theme every three months the highlights of which will be published monthly in its relevant Newsletter column.

In addition to increasing publication output, SGAC Communications & Public Relations have seen several additional developments. Graphics design output has greatly evolved with the development of several banners including the Space Generation Congress 2009 Banner.

For 2009, the Communications & Public Relations Team aims to focus on continuing to deliver the latest news and press releases. It will continue to improve connections and communications between SGAC members and cooperating organisations. Special emphasis will be placed on enabling the telecommunication and facilitated participation prior to and during the Space Generation Congress 2009.

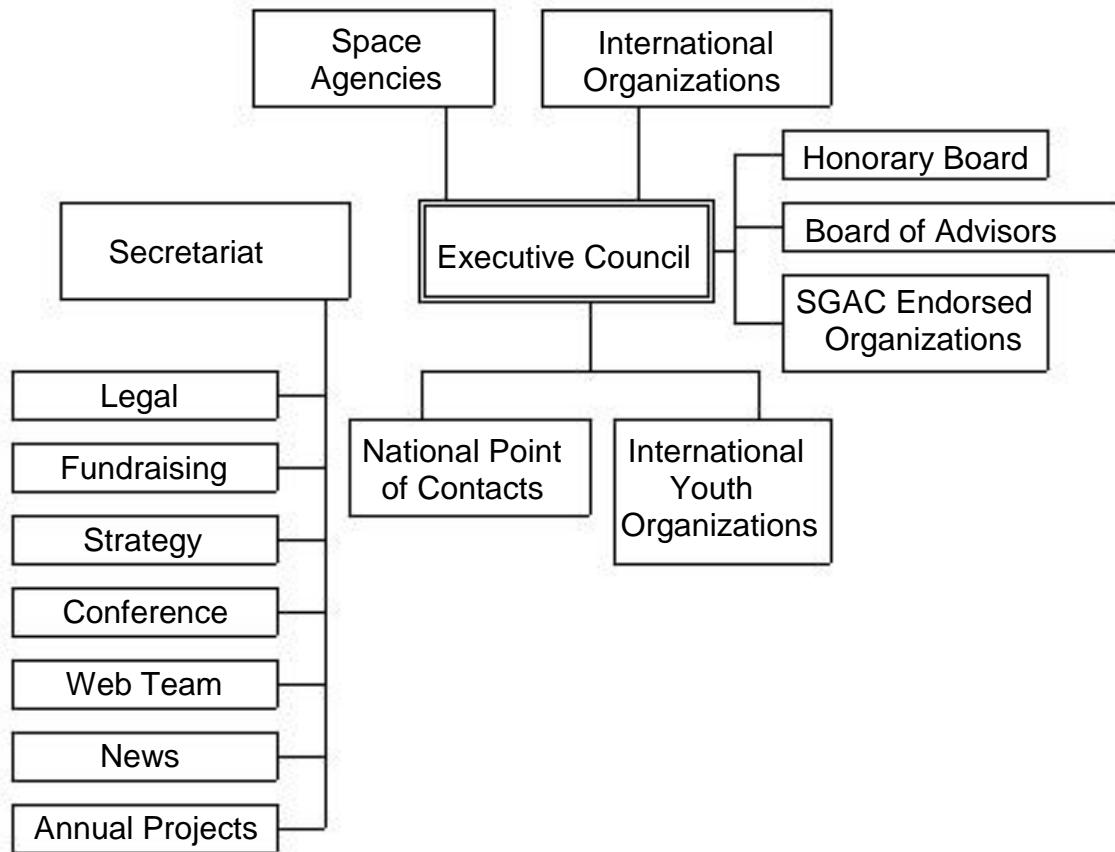
The team will continue to deliver the highest possible standard of communication and public relation services to the members it represents. For more information please visit our website or directly contact our team.

Daniela Petrova

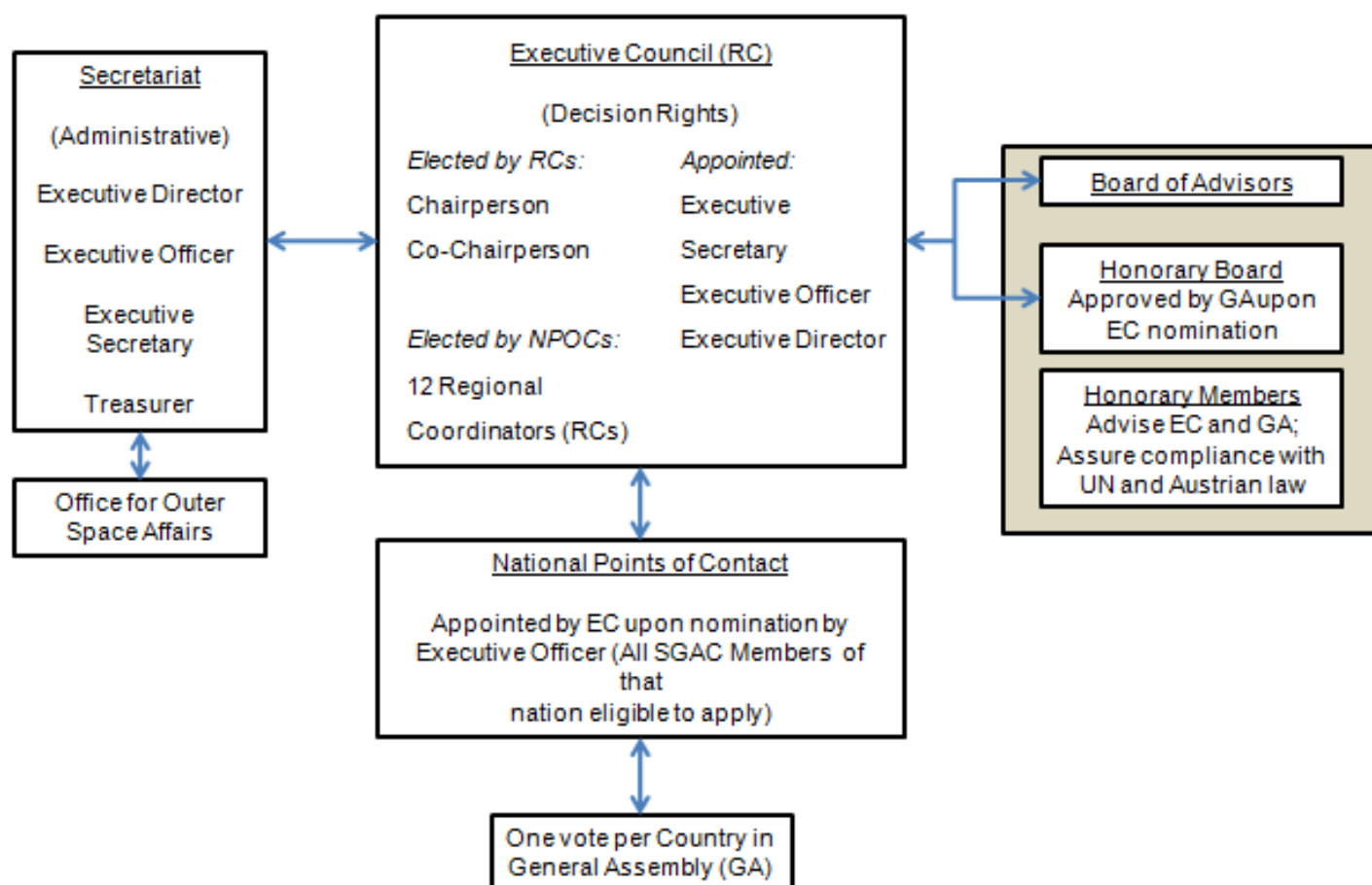
SGAC Communications and Public Relations Team Lead

SGAC Leadership and Structure

SGAC External Organization Map

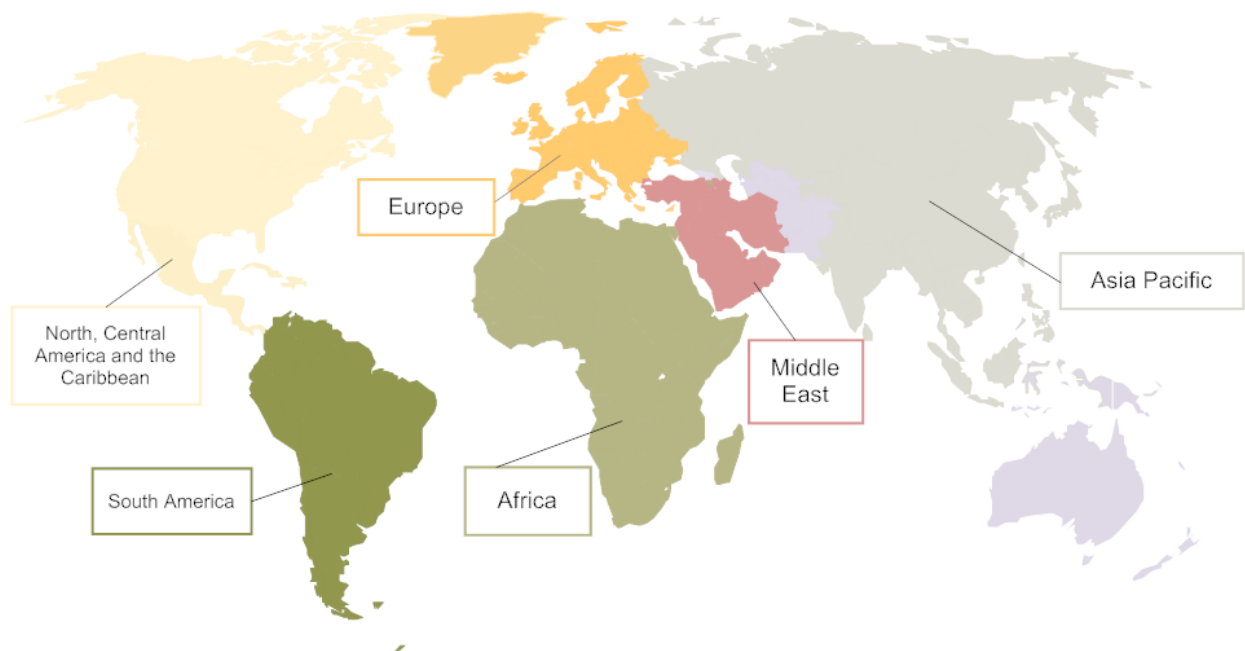


SGAC Internal Organization Map

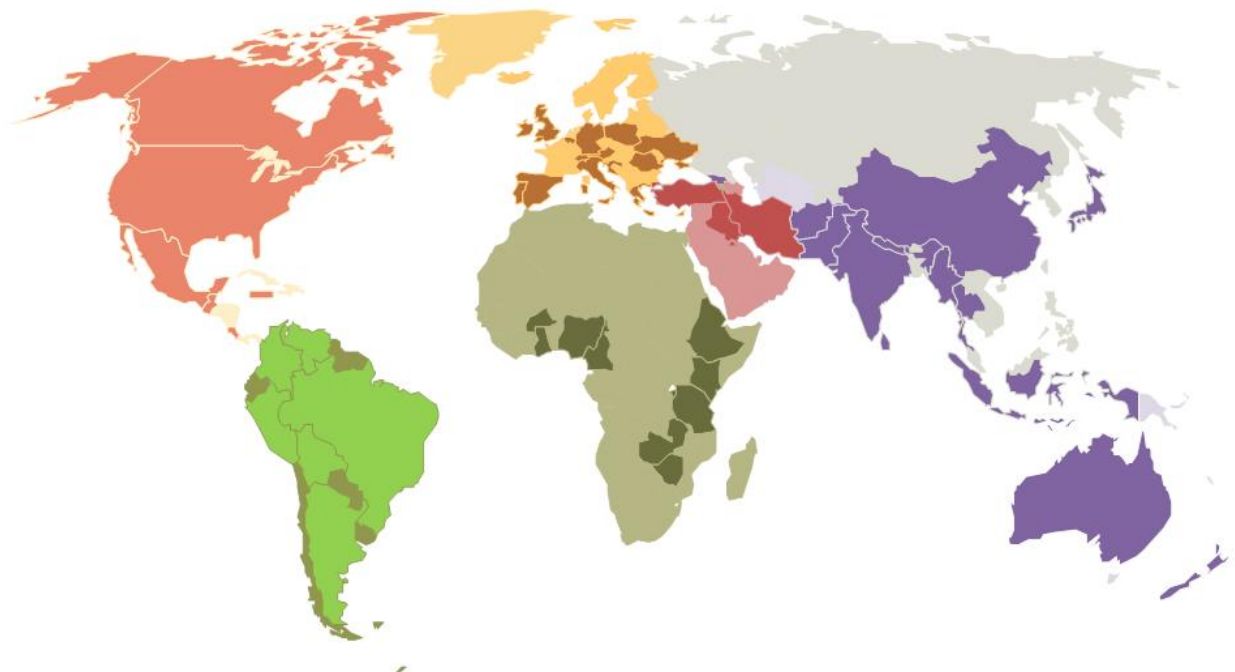


SGAC Regional Reports

Maps of SGAC Regions and Represented Countries



Map of all SGAC Regions



SGAC – so far 53 countries worldwide!



SGAC is represented in 14 countries which are Burkina Faso, Burundi, Cameroon, Egypt, Ethiopia, Kenya, Libya, Madagascar, Mauritius, Nigeria, Rwanda, Senegal, Tanzania and Zambia.

Space unfortunately is not widely understood and appreciated among the African young generation. Educational opportunities and access to relevant experiences are limited for students and young professionals and this has a clear impact on Africa's ability to develop a strong capability. This is one of the reasons there are only a few African countries that have regular participation on space technology programmes. Examples include South Africa, Nigeria, Mauritius, Ethiopia, Kenya and Zambia.

This year many there were minimal space activities in the African region. Communication among the NPoCs and RCs has been challenging as many NPOCs do not have regular access to the internet. This is the primary reason for the limited amount of events in the region.

It is obvious that most of African countries are less developed countries and most of SGAC Representatives are students who are have problems finding funding. It is very difficult to get funding from the government or other organisations in our countries for supporting space activities as most of these organisations are interested in environment, HIV/AIDS and Human rights.

Ethiopia

There have been quiet few activities carried out on space science in Ethiopia for the year 2008. The number of activities in 2008 was better than 2007, and it is summarized as follows.

February

February was a month of organisation for SGAC in Ethiopia. Call for membership and involvement was sent to many universities and individuals in the country. We were able to approach few significant figures including artists and a famous athlete, Halie Gebresilassie, to be member of the local SGAC team. We were able to attract many individuals and SGAC members increased from one to hundreds. For the most part, members are from high schools, universities and professional societies.

April

We organised a number of activities in April. We were also able to cooperate with other organisations. On April 11th, the Russian Center for Science and culture organised a special program to honor the first human space flight. SGAC was invited, and Bekele Tujuba made a presentation to introduce SGAC and its activities. The title was "SGAC: Global and Local Activities." On April 12th, Ethiopia celebrated the Yuri's Night for the first time with two events. First during the day, students from Addis Ababa University



and more than ten high schools gathered at the science department at Addis Ababa University to celebrate. We had a portable planetarium, and we distributed colorful posters and CDs to participants. We also had space movies and demonstrations as part of this great event. Then, during the evening, another program was held in Addis Ababa University where there were music, film showing, and star gazing with telescopes.

May

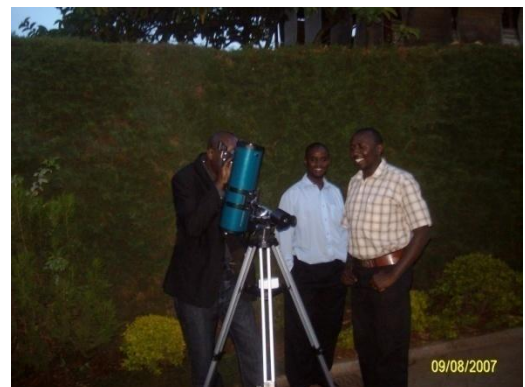
On May 24th SGAC and Union of Physics Students (UPS) jointly participated in the general assembly of Ethiopian Space Science Society (ESSS). Posters, pictures, and CDs from the IHY-SCINDA workshop held in Addis Ababa in November 2007 were on display and distributed.

October

The World Space Week was celebrated in Ethiopia for the first time this year. From October 4-8, the WSW was celebrated in St. Joseph High school. From October 8-10, it was also celebrated in Tikur Anbessa High school. Various activities and film shows were made during the entire week. For pictures of the activities, please visit <http://sirius-c.ncat.edu/asn/country/ethiopia/wsw-ethiopia>.

Kenya

Kenya has a population of 36 million. There are around six public and several private universities. Most of the universities offer science courses. Nairobi University, the first university in Kenya, is in the process of rolling out an Astronomy degree program. Astronomy is also covered in the high school and primary curriculum under Geography, biology and Physics. There are a number of international organisations that do education and public outreach in astronomy.



Star Parties

This is a program that is open to members of the public. We aim at promoting astronomy awareness and use astronomy to promote education and peace. Our very first star party took place in March 31st March 2008 at The University of Nairobi Chiromo campus.

The event was organised by Dr. Paul Baki, SPoC IYA Kenya and professor of Physics at University of Nairobi, Susan Murabana, Hands-on universe Africa leader and National Point of contact SGAC. This event was meant to recruit young professionals and science university students who would be invited to the other organisations to participate in public outreach and serve as role models to students in schools.



The main guest was Kevin Govender, South Africa Astronomical observatory SAAO and chair developing astronomy globally, one of the cornerstones of IYA. The success of the star party was immediately realized. Over 40 students became interested in space science and have since been the leaders in organising an astronomy club at the university and associated institutions.

Several other star parties have been held at the university and schools. To support astronomy activities the University has since purchased another telescope. They also received a telescope donation from South Africa. Hands-on Universe Africa, an organisation dedicated to promoting science education in Africa by using astronomy tools and concept, also received a telescope donation from a local medical equipment company, Pulse Healthcare Ltd. The equipment is been used to promote astronomy education in the schools and amongst the general public.

Universe Awareness

In February 2008, Kenya became a partner of Universe Awareness, an international program that exposes very young children in underprivileged environments to the scale and beauty of the universe. The first UNAWE program took place in Mathare Internally displaced camp (IDP), one of the largest slums in Kenya. Other schools were visited and a total of over 100 young children were approached last year. Programs like 'Nyota' for peace and 'Nyota' for schools have since been rolled out. Several students and teachers have been reached under this program and on-going plans are still underway to reach as many children as possible.



Last year we received funding from FourTell eAfrica, a local ICT company to support our Universe Awareness program. After the introduction of the Universe Awareness program we are now in the process of setting up a mentor program between young professionals/university students, high school students and primary school students. We are introducing our packages to already existing organisations and clubs that already have the network.



Astronomy Clubs

We have since set up astronomy clubs in schools that we visit and regularly coordinate with the schools a number of activities that we will do for the rest of the year. We are currently partnering with Cosmos Education, an organisation dedicated to promoting science education in developing countries to reach as many schools as possible. So far a good number of schools in Kenya already have astronomy clubs.

Teacher Training program

We trained teachers and young professionals on the already existing astronomy software. We hope to train many more teachers this year and hope that these teachers will become ambassadors and train other teachers with the help of astronomy professionals. The first ever teacher training was a collaboration of Kenya and USA (University of Berkeley) The event was locally sponsored by UUNET Kenya and internationally sponsored by National Science Foundation and Las Cumbres Observatory Telescope Network.



Mauritius

Mauritius is a non space faring nation, with no formal space based industry but we have managed to have some events. In particular, we engaged in World Space Week by organising an event at the Club Aeronautique (Aeronautical club)- Lycee Labourdonnais. This proved to be among others, an opportunity to get the young interested in space and space related activities but at the same time giving some meaning to participation. Beyond SGAC, there were some interesting space events in the country.

- We had a visit from Mr. Jean-Louis Heudier, an Astronomer with the Observatoire of the Cote d'Azur. Besides his research activities, Mr. Heudier is a great advocate for astronomy and he has set up various institutions.
- Research work continues at the Mauritius Radio Telescope (MRT). Collaborative work with other research facilities like the Raman Research Institute at Gauribidanur is ongoing.
- The Mauritius Oceanographic Institute is also carrying out numerous space related projects including a space-based approach to modeling & mapping oceanic processes of South West Indian Ocean.

Nigeria

SGAC activities were minimal in Nigeria this year due to communication challenges, but progress in space has been strong this past year for the country. Nigeria used space technology to fight flood disaster. The Federal Ministry of Science and Technology Nigeria is to avail relevant agencies with space-based technology to mitigate natural disasters and other environmental problems. Space-based technology such as Remote Sensing, Geographic Information system and Global positioning system are very reliable as they provide faster, cheaper, accurate and reliable data to address flood and other environmental disasters. Also, the National Centre for Remote Sensing produced a settlement Map of Nigeria, and a Digital Elevation Model. They are currently working to produce a National land use/land cover mapping at the scale of 1: 100000 using NigeriaSat – I.

Rwanda

There were many interesting space and SGAC activities in 2008 in Rwanda. The NPoC presented to some Rwandese students and professionals from Kigali Institute of

Science and Technology who were quite happy with the idea of forming a Space Generation Club for Rwanda.

Again the NPoC was able to contact some students from Science Club at the National University of Rwanda, who are also interested in actively participating in SGAC activities. The NPoC was also able to actively participate in the SGAC YGNSS committee and Google group, by providing inputs into documents and also participating in the group's activities.

The biggest challenge currently faced is the lack of financial resources to enable the NPoC organise some activities like workshops and trainings for the interested parties. The second challenge is also concerned with the establishment of an office for SGAC in Rwanda. The interested parties at Universities could also host the office, provided there is some budget but the office would not be independent.

Tanzania

Space Generation Advisory Council is one of the greatest youth networks this world could ever have. And it is through such incredible set of connections that Tanzania has become one of the most enthusiastic space nations in Africa. The number of youths in the country interested in space has recently risen and this expresses the sign of growth of the network in Tanzania.

SGAC has had many successful activities in 2008 in the country.

- **Publicity:** This is one of the pre-occupation in National Point of Contact office. This is done through widening the network of space generation in the country by encouraging more members to join the network. The number of posters and brochures has been distributed especially in the higher learning institutions. This has helped more youths to be interested in space affairs.
- **Fund raising for SGC delegates from Tanzania 2008:** This was done through designing sponsorship proposal for the selected local companies. The designed proposal included the details of both the SGAC and the SGC, expected benefits of the selected delegates at personal and community level and the sponsor benefits too. Due to high budget implication in regard to the trip as a whole, it was wise for us to include in our proposal just traveling expenses of delegates. This would probably ensure acceptance of our proposal. However in the end, there was no positive response in regard to the proposals which consequently obstruct the ability to attend the Congress by the Tanzania delegates.
- **Fast tracking the African Working Group Initiative:** Thoughts and opinion inputs and broadening the African Space networks are part and parcel of our initiative to fast track that vision. Also this has been done through providing information about space centers or organisation that utilizes space technology or any space related issues in Tanzania.
- **Offering support and encouragement:** The NPOC was able to encourage my colleagues to continuously participate in space generation projects and forums. As a matter of fact the Tanzania flag is up high in the forums as their participation is both high in enthusiasm and commitment. This shows how much vigor and enthusiast spirit Tanzanians have in relation to space issues.



This word of Support has been extended to include specifically the SGC delegates from our country. This consists of advice on how to raise fund at individual level and urge them to maintain their participation in SGC projects which can eventually help them even to secure scholarships offered by the SGAC.

With 2008 behind us, going forward we hope to:

- Conduct workshop, seminars, and projects in relation to space right after this year's Space Generation Congress.
- Visualize the way of conducting World Space Week (WSW) in Tanzania in 2009 and Yuri's night in April 2009.
- Continue to widen the network of Space Generation and make the organisation to be known across the country.

If we will be able to secure more members in the country, it will ensure simplicity of various activities in regard to space as there will be more volunteers to handle the challenge. But there are, in fact, many challenges:

- **Time limitation:** It should be noted that most of the Space Generation activities are time demanding and require carefully demarcation of one's personal activities and space generation activities. For person to be active a minimum of 2 hours is required everyday to update him or herself on various issues of space generation. This has been a challenge here on my side and most of my fellow colleagues as it is not always possible to get time to do ones extra curricula activities. This has sometimes hindered the effective functioning of the space network in the country. It should also be known that most of the members of this network in Tanzania are students of higher learning institutions and this has proven to be a challenge in terms of getting these fellows to participate in various space activities as most of the time the studying environment has the tight schedule.
- **Financial issues:** It is well established that space generation activities is conducted under volunteering bases to all National Point of Contacts. This means anything done should be under the capabilities of one's own pocket and capabilities. Although there's that volunteering spirit, financial setbacks in most cases have obstructed the success of some space generation activities in the country.
- **Technical support services:** This is directly related to the availability of Internet services in third world countries. This has been a serious problem in relation to the execution of space generation activities and programmes. As we all know that almost all of the SGAC issues are done on line, so without internet connection it is absolutely impossible to keep track of space generation activities. This is not only associated with failure of internet servers but also power interruption which disable the workings of computers.

It is sufficed to say that students and young professionals in the field of space can be a great deal of help in maintaining the beauty of the universe. Tanzania as a developing country has its role to play in rolling the space generation tries to reach a destination of



knowledgeable society on space matters. The awaking of number of youth in regard to space issues provides a glimpse of hope that, Tanzania can carry space generation flag up high.

Zambia

The year 2008 was very successful as regards to space science activities in Zambia. Notable things that happened include Zambia's participation in the World Space Party, Yuri's Night, and the World Space Week. This happened for the very first time. We also had a new National Point of Contact appointed. Outside our domain, the University of Zambia was blessed with the installation of the Magnetic Data Sensor at the institution.

2008 ACTIVITIES

1. YURI'S NIGHT

To commemorate Yuri's Day, we organised a braai party at the Commonwealth Africa Youth Centre on the 12th of April 2008. It started at 19:00 hrs Zambian time. The function was mostly attended by University of Zambia academic staff and Physics students. The participants had a great opportunity on this day to view planetary bodies using the Physics Department's programmable 'GOTO' telescope. The night was full of satisfaction.

2. THE UNIVERSITY OF ZAMBIA MAGNETIC OBSERVATORY

As the University of Zambia moves towards starting space physics programmes, we saw the installation of magnetic data acquisition equipment at the institution by MAGDAS Japan. This sends real-time signals to Japan and is also monitored locally.

3. WORLD SPACE WEEK 2008

A seminar was organised to prepare high school Physics teachers for World Space Week celebration. The theme was *EXPLORING THE UNIVERSE*. Twelve schools from different parts of the country sent teachers to participate in the seminar. At the end of the seminar, the delegates made a commitment to go and organise activities in their respective schools for World Space Week celebrations.

4. NATIONAL POINT OF CONTACT APPOINTMENT

In December, 2008, Prosperity C. Simpemba was appointed Zambia's National Point of Contact.

The coming year 2009 looks even brighter for space science activities now that most of the things are in place. As Space Generation Zambia, we commit ourselves to increasing national membership and to do our best in organising events and sensitizing people about the happenings in space science.

5. UPCOMING EVENTS

1. World Space Party, Yuri's Night on 3rd April 2009.

Organizing Committee comprises Dr K Hansingo, Mr N Mwiinga and Mr S Mudenda.

2. Basic Space Science Seminar, 4th October, 2009



3. World Space Week Celebration 4-10 October, 2009.
4. Launch of IYA 2009 ZAMBIA (DATE:to be announced soon)
- 5.The SCINDA/IHY - Africa 2009 Workshop: 7-11 JUNE 2009; Venue: Zambia's tourist capital, Livingstone.





2008 has been an exciting year for space activities in Asia Pacific, with several countries accomplishing many 'firsts' that are supported by dedicated space professionals, young researchers and enthusiasts alike and have inspired and impacted young people all around the world. The SGAC Asia Pacific region certainly felt the excitement and the energy has been resonating in the contingent of NPoCs from the region. We have been able to add several very promising young space professionals to our council – welcoming new NPoCs from Myanmar and India.

Highlights from the NPOCs' activities show the variety of SGAC projects resulting in the following accomplishments:

Korean Astronaut So Yeon Yi with SGAC Members after interview at the International Astronautical Congress in Glasgow UK

Asia Pacific Activities

- Closely able to follow a strong network of youth members in India who did significant amount of outreach for the India's Moon orbiter Chandrayaan Mission's launch and operations
- Being able to create awareness about SGAC and our regional activities through a presentation to the UN COPUOS General Assembly focusing on disaster management "Youth Views on the capacity building for community-based disaster management, in context of the recent disasters in the Asia Pacific region" in June 2008
- Interviewing So Yeon Yi, the premier Korean Astronaut following her successful flight. She was thrilled to hear about SGAC's activities and meet several of the members present at the IAC 2008 in Glasgow, UK
- Built stronger ties with representatives in Vietnam, Philippines, Indonesia and Nepal so that we can increase participation of youth from these countries within our region
- Coordinating and working in conjunction with some of the most promising young people in the region

SGAC 50 Years Visions Activities:

- Drafting and analyzing 50 years project by a shorter survey on the visions, but now focusing on use of space technologies and assets to address 'earth-ward' problems in early February 2008
- Gave an oral presentation to the audience of the 12th Symposium of the International Space University in Strasbourg, France in Feb 2008. This is available to be downloaded from
- Gave an oral presentation to the Royal Aeronautical Society, South West Branch in Filton, UK in March 2008
- Participated in the European SGAC Regional meeting held in Copenhagen, Denmark in April 2008



- Designed a poster for further publicity and outreach of the SGAC 50 Years Visions Project in April 2008. This is available for download from [http://www.spacegeneration.org/files/2125/poster_50yrs.pdf]
- Established contacts with EADS Space Transportation and was able to provide the opportunity of the German NPoC Juergen Schultz to participate in an invite only workshop: "Global Space Vision 2050".
- Led a project group that looked into the future developments of SGAC 50 Years Visions project at the Space Generation Congress in September 2008 in Glasgow, UK
- Authored a paper and gave an oral presentation at the International Astronautical Congress in Glasgow, UK in September 2008
- Approve and maintain a good dialogue with the project group on the next steps and look forward to publishing the views and aspirations of the world's next generation leaders in the 10th Anniversary year of SGAC.

SGAC Newsletter

- Initiated the SGAC Newsletter as a monthly communication tool to feature stories and events that are relevant to young people, provide a platform to exchange ideas and project updates and encourage a balance in exposure to activities that are of interest – Astronomy, Culture, Regional events, conferences, symposia, opportunities to work with Space Agencies, University, other organisations and SGAC itself
- Managed the SGAC Newsletter content, outreach, editing and circulation with the help of a volunteer from January 2008 – September 2008.
- Formulated 'how to' guides to help handover work to volunteer team dedicated to communications and media at SGAC
- Recruited volunteers and maintained a healthy tie with contributors – it really felt like a lovely community eager to engage in a dialogue with young people around the world!

Space Generation Congress 2008

- Fundraised for the Peter Diamandis Leadership Award that was granted to Laura Garcia in 2008
- Led SGAC 50 Years Visions Project team and approved next steps for further development of the project

International Year of Astronomy

- Represented SGAC for preparations towards the global celebration of International Year of Astronomy 2009 as an Organizational SpoC
- Created and coordinated the SGAC IYA 2009 Essay Competition along with Halit Mirahmitemglu in November - December 2008
- Organized travel and sponsorship for two winning candidates – Miftachul Hasana from Indonesia and Ajith Padmanabham from India to attend the Official Inauguration of the IYA 2009 held at UNESCO Head Quarters in Paris

Other Youth program liaison

- Helped initiatives to increase and encourage participation of youth members from SGAC, SEDS, AIA, etc in my capacity as a member of the Board of Directors to The Planetary Society
- Helped to improve incentives and benefits for members of the International Astronautical Federation with a view to engage younger audience and provide a



capacity building role as a member of the Advisory Committee for Space and Society

Afghanistan

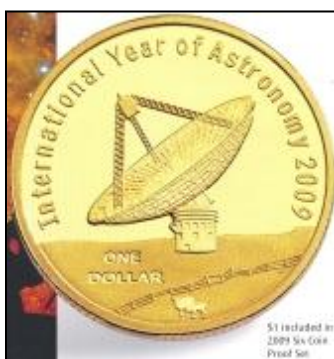
During 2008, neither governmental nor private sectors paid attention to space and astronomy at schools and universities and public awareness. The NPOC made many efforts were made by the NPOC to at least get sponsorship to have a representative in the Opening Ceremony of the IYA2009. This would have attracted the attention of media, which is the only way to let the government and NGOs know that there are some people working for space and astronomy and need help. Unfortunately, it has been a frustrating year but we are optimistic about 2009.

Australia

2008 was a busy year for the Australian space sector. A number of space-related conferences and events were organised and successfully conducted around the country. Significant progress was also made in respect to Australian involvement in the global space movement and various key figures were involved in this progress. It is becoming increasingly clear that Australia is striving to be involved in international space development and growing to be a significant contributor.

The most significant event of 2008 was the collaborative work submitted to the Senate Standing Committee on Economics which was compiled by various members of the space industry and associated institutions. In total, eighty individuals and institutions of the industry submitted reports, most of whom were in support of Australia's space science and industry sector, outlining the benefits of joining the international community and forging partnerships. The Senate committee released a promising interim report with the following concluding remarks: "There is clear commitment by many involved in space science and excitement about the untapped potential of this area of science and technology. The committee looks forward to completing its enquiry about this industry" (Australia's space science and industry sector, 2008).

In November the committee released its final report entitled "*Lost in Space? Setting a new direction for Australia's space science and industry sector*". The committee noted "there is a lack of clarity in organisation, confusion as to who does what and who is able to fund what". It recommended an establishment of an Australian government space information web site which would link all the different organisations together, distribute information about current projects and provide a means of communication. It also recommended the establishment of a government-run national space agency which would place Australia to engage in opportunities with the international space industry and reduce its reliance on other countries. This is a very promising report and all the people involved within the industry are eagerly awaiting the outcomes.



During the time of senate committee's hearings, many other regular space events have been occurring within the country. Some are gearing up for the International Year of Astronomy while others are simply carrying out their annual or biannual affairs. In relation to the former, the Royal Australian Mint in Canberra has released four sets of 2009 coins in its aim to "help people rediscover their place in the universe with a strong emphasis on education, public engagement and involvement from young people of all



communities" (Royal Australian Mint, 2002). The sets may be purchased in two's or six's in either proof or uncirculated sets.

An annual event which has been gradually gaining reputation over the last few years is the IceInSpace AstroCamp. This year it was held on 30 October — 2 November at the Lostock Scout Camp in New South Wales and attracted a crowd of over 150. Skies were clear during the event which provided keen amateur and professional astronomers with an opportunity to take some brilliant photographs of the Southern sky as well as to make new acquaintances in the process. The camp was a success and it is hoped that next year's event will be even greater.

IceInSpace hopes to play an integral part in IYA2009 by hosting local, national and worldwide IYA2009 events and activities, as well as helping individuals, astronomy clubs and societies promote their own local activities. A special committee has been formed for this purpose and they will work behind the scenes to get things moving.

In the quest to promote IYA2009, Swinburne University Centre for Astrophysics and Supercomputing is offering visits to schools across regional Victoria to present 3D AstroTours which comprise of astronomy-based animations, simulations and movies displayed via virtual reality. The Centre has already organised a number of space related public lectures during the year and is actively involved in promoting space related subjects within the community.

Victorian Space Science Education Centre (VSSEC) and Japan Aerospace Exploration Agency (JAXA) co-hosted the Asia-Pacific Regional Space Agency Forum's (APRSAF) International Water Rocket Education Workshop at VSSEC from 30 June to 3 July 2008. Educators from the Asia-Pacific Region, South America and Africa joined Australian teachers and Japanese experts to explore how water rockets can be used to raise awareness about space technology and develop science skills.

The 10th Australian Space Development Conference, a biannual event, was held in Adelaide from 21 — 23 July which many of SGAC's members attended. This year's theme was "*making sustainable decisions*" and speakers from industry and government discussed the way forward for Australia (ASDC, 2008).

Another significant event for the youth space movement in Australia was the national space camp to Woomera which was a five day residential conference for high school students from around Australia. The Centre for Australian Space Education (CASE) announced their 16th annual Space Camp which was held in Adelaide and Woomera test range (both in South Australia). The event was sponsored by Sir Ross & Sir Keith Smith Fund and aimed to inform and advise students about career options in space science, engineering and technology, prior to making senior course selections. The program included lectures, workshops and excursions to museums, universities and observatories, and viewing sounding rocket launches by ASRI while in Woomera. 40 students attended the camp from all around Australia.

In the same month, University of Queensland researcher, Mary D'Souza, returned from the International Astronautical Congress (IAC) where she presented her concept for moving an asteroid and preventing a collision with Earth. Mary won SGAC's "*Move an Asteroid 2008*" international youth technical paper competition to develop unique and innovative concepts for how to deflect an asteroid or comet that could impact the Earth.



and was awarded to travel to Glasgow to present her paper at the Space Generation Congress.

Other events of 2008 included the 8th Australian Space Science Conference held in Canberra from September 29 to October 1 (<http://www.nssa.com.au/ocs/index.php?cf=10>) and the Australian Space Research Institute's (ASRI) 18th annual conference in Brisbane held over 2 days, from 29-30 November (<http://www.asri.org.au/conference>).

Next year will be an exciting time to be involved in the space industry in Australia and elsewhere in the world. The 2009 International Year of Astronomy will accommodate many space related events here and abroad in its aim to motivate the youth of the world to become engaged in this fascinating science and continue peaceful exploration of the cosmos. It is also hoped that with the recent progress made by the senate committee, Australia will begin to play a major role in this movement.

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India

The year 2008 will be remembered in the history of Indian Space Program as the year in which India successfully reached the moon. The Indian Space Research Organization (ISRO) successfully launched Chandrayaan-1, India's first mission towards moon on the morning of 22nd October from Sriharikota in India. Chandrayaan-1 successfully entered lunar orbit on November 8, 2008. This is the first time that an Indian built spacecraft has broken away from the Earth's gravitational field and reached moon. With the success of Chandrayaan-1, India became the fifth country to send a spacecraft to Moon. The other countries, which have sent spacecraft to Moon, are the United States, former Soviet Union, Japan and China. Besides, the European Space Agency (ESA), a consortium of 17 countries, has also sent a spacecraft to moon. More information on Chandrayaan can be had from ISRO's website at <http://www.isro.gov.in>

The whole country is feeling proud about ISRO's accomplishment, as it did this feat against all odds. The success of Chandrayaan-1 has Indian youth very excited and freshly inspired and looking at space as a career option.



Pradeep Nair, President, SEDS-India and member, SGAC has been keeping everyone updated about Chandrayaan's every move through a very interesting Twitter he has put up at: <http://twitter.com/chandrayaan>

SGAC salutes ISRO on its brilliant accomplishment and is currently drafting a letter to Mr. Madhavan Nair, chairman, ISRO, congratulating his team and him.

2008 saw not only India's flag flying high on the Moon but also a plan for a India's manned mission for 2014 was established along with exploration of Mars and other planets in the next two decades.

IIT Bombay's Student Satellite Initiative

Students of IIT Bombay have started an exciting Student Satellite Project, whose objective is to make IIT Bombay a respected centre for advancement in Satellite and Space Technology, in the world. The project aims at launching at least 5 satellites within the next few years. 'Pratham' (literally meaning First) is the first satellite under this project



(<http://www.aero.iitb.ac.in/pratham/>). It will weigh less than 10 KGs and will fit inside a volume of 25 CM X 25 CM X 25 CM. The satellite will be launched by ISRO.

The project also offers educational opportunity for students of other colleges by involving them their project by building ground stations in their universities. A 'Ground Station' Workshop was held in this regard in Mumbai on 12th October where the students from other colleges learned how to make a working low cost ground station (<20,000 Rs OR < 450 \$) capable of receiving signals and data from 'Pratham'.

2nd National Point of Contact for India

Athiye Jawad was appointed as the co NPoC of India along with Vikrant Narang. Born and brought up in Bangalore, Athiye moved to France to do her Space Studies and now lives in Berlin, Germany. SGAC will be greatly benefited from Athiye's knowledge and experience and looks forward to build up a new momentum as we step into International Year of Astronomy 2009.

Space Generation Congress - Glasgow

After a huge success of SGC, Hyderabad in 2007, there was a clear increase in the number of applicants for SGC, Glasgow from India this year. A total of 10 applicants were selected for the Congress from India this year.

Space related Events/Seminars/Conferences conducted in 2008

There is an increased awareness of space related activities in India in 2008. Chandrayaan-1 plays a huge role in contributing to this awareness. Databases of events conducted throughout the year would allow for easy tracking and updating the events for the years to come.

List of 2008 events:

Yuri's Night

Yuri's Night coincided with International Sidewalk Astronomy Night (ISAN) this year which also fell on April 12. Astronomy Club, Ahmedabad conducted small program at Ellisbridge Gymkhana, Ahmedabad for the Yuri Night and ISAN by putting up two telescopes and attracting visitors to see the celestial objects, they also distributed a few flyers on the Yuri Gagarin to the visitors. Later they shifted base to Law Garden, one of the busiest walk ways and favorite joint for eating & night life in the city.

World Space Week



India now has a new National Committee for Coordination of World Space Week, headed by Mr. C.B Devgun, President, SPACE. World Space Week Celebration in India was held in several locations across India attracting youth and school children. Here are some photos of events held in New Delhi and Ahmedabad:



School Students at a Space Art Competition organised by SPACE at New Delhi. Theme: Exploring the Universe through the Eyes of Children.



Image Caption (above image): Students displaying their models at the World Space Week celebrations by Astronomy Club, Ahmedabad

India's Efforts to Check Light Pollution and Restore the Night Sky to Current Generation

Light pollution caused by improper lighting is an important concern of amateur and professional astronomers around the world. India has started its own campaign to educate people about harms of light pollution and restore the charm of unpolluted night sky full of stars back to present generation. Two such key projects are: 'Project Dark Skies' <http://www.projectdarksities.org> by SPACE, India and 'Taare Sadak Par' <http://nehruplanetarium.org/taarewiki/pmwiki.php?n=PmWiki.TaareSadakPar> by Nehru Planetarium, New Delhi, these programs hope to accomplish this task by getting students and general public in various cities involved in simple star counting techniques to determine the quality of the night sky from their location. This will not only create awareness about the light pollution amongst masses but also generate a huge amount of data that will help in better understanding light pollution. Vikrant Narang, SGACs NPoC for India, is actively involved in educating students about the above two projects and helps in observations and data collection. IYA2009 Cornerstone Project - Dark Skies Awareness is also directed towards preserving and protecting the night sky.

India Riding the IYA2009 Wave

India has picked up the IYA2009 wave, there is a huge momentum being picked up in Astronomy Circles in India, thanks to many landmark Astronomy outreach events conducted in India in the year 2008, particularly noteworthy events are: 1) Milky Way Voyage - First National Star Party of India conducted in March 2008 at ARIES Observatory, Nainital organised by two noted astronomers in India - Ajay Talwar and Nilesh Vayada along with SPACE, Nehru Planetarium, New Delhi, Amateur Astronomers Association of Delhi and Confederation of Indian Amateur Astronomers (CIAA). About 150 amateur astronomers from all over India gathered for this two night star party at the observatory grounds. 2) Earth 'n' Sky - An International Workshop on Astrophotography and Image Processing conducted in October 2008 at Nehru Planetarium, New Delhi. The workshop organised by Nehru Planetarium, New Delhi; SPACE; Indian Institute of Astrophysics (IIA), Bangalore; Aryabhata Research Institute of Observational Sciences (ARIES), Nainital. About 200 students and amateur astronomers from India participated in the workshop. The workshop also had a fortunate collaboration with the UN recognised special project for IYA: "The World At Night (TWAN)" and with the project: "Astronomers Without Borders", the organisational node of IYA.

There is a tremendous solidarity being shown by Indian amateur astronomers towards making IYA2009 a great success. The fact that the 'Longest Eclipse of the Century' will be passing through India on 22nd July 2009 in the IYA has also added tremendous excitement amongst astronomers in India.

Japan

Japan had an exciting year with Kibo module launches to the ISS, growing scale and variety of Yuri's Night events, JAXA call for astronauts, JAXA student participation at the IAC, a very successful World Space Week event, and the recent decision for our 2nd female astronaut to fly on a 2010 Space Shuttle mission to the ISS.

Yuri's Night JAPAN 2008 team led by Hiroshi Yamashita organised 5 events in 3 cities: Tokyo, Sagami-hara, and Kyoto. The Tokyo events attracted over 100 guests. The



Sagamihara event was organised by the Young Astronaut Club. This year, one of our members, Takeshi Hakamada, acted as a liaison to Yuri's Night Global. In the future, we would like to increase cooperation and interaction with teams in other countries.
<http://www.yurisnight.jp/>

In spring, JAXA put out call for astronauts for the first time in 10 years. They plan to select 3 new astronauts to work onboard the ISS. In November, we were excited about the decision for our 2nd female astronaut, Naoko Yamazaki, to fly on the Space Shuttle to the ISS in 2010. She is 37 years old with a husband who is passionate about private spaceflight and a 6-year-old daughter, Yuki.

For SGC projects, we had two participants early on, including Yasuko Yanatori, but unfortunately none could attend the actual SGC in Glasgow. At the IAC, however, 18 students from various universities around the country were sponsored by JAXA to attend the conference. They held an event at the International Student Zone, introducing their projects and giving out Japanese space food as well as deployable structure kits.

Our World Space Week director, Misuzu Onuki, along with Hiroshi Yamashita helped to organise an energetic event in Tokyo with a theme of space tourism. This event featured inspiring guests, including Noriaki Inami, who has a ticket to fly on Space Ship Two. More than 100 guests participated in this successful event.



<http://www.flickr.com/photos/worldspaceweek/sets/72157607797829484/>

More activities can be found at Manned Rocket Project (<http://www.manned-rocket.jp/>) and University Space Engineering Consortium (<http://www.unisec.jp/>).

Pakistan

The activities performed in 2008 were mainly in the domain of space awareness in the Pakistani society.

- Yuri's Night is a celebration of humanity's achievements in space. On April 12, people in Pakistan also celebrated to mark the anniversary of Yuri Gagarin's first flight into space. Two Yuri night parties were organised at Lahore and Islamabad. Apprx 40 persons attended Lahore party and 35 persons attended the party in Islamabad.

- There were some events in WSW celebrations week, including space quiz, slide shows, poster making and star counting teams at different places in the region around Lahore.
- ICAST 2008 – 2nd International Conference on Advances in Space Technologies was held on 29-30 Nov. in Islamabad, Pakistan. The theme of this conference was “Space in the Service of Mankind”
- SGAC’s RC for Asia Pacific, Bee, and 2nd RC for Asia Pacific (also NPoC for Pakistan), Shafiq, attended the UN COPUOS in Vienna.



A star-counting Team near the mountains of Jehlum in Punjab.

Sri Lanka

It has been an exciting year for youth space activities and events in Sri Lanka. The period under review is from 2nd December 2007 to 1st December 2008.

Sir Arthur C. Clarke's 90th Birthday Celebrations

Our country's most famous guest resident, Sir Arthur C. Clarke, celebrated his 90th birthday on 16th December 2007. The official ceremony was held at the Central Bank Auditorium in Colombo amid a gathering of distinguished guests, including many from the space, science and technology fields. Some of the guests included His Excellency Sri Lankan President Mahinda Rajapaksa, Sri Lankan Foreign Minister Rohitha Bogollagama, Former Russian Astronaut and the first man to walk in space outside a spacecraft in 1965, Dr. Alexey Leonov, NASA's Solar System Exploration member Dr. Michael Zolnesky, former Chairman Indian Space Research Organization (ISRO) Prof. U.R. Rao and the Principal Engineer of NASA's Jet Propulsion Laboratory Dr. Sarath Gunapala.

Thilina Heenatigala, SGAC member and Secretary of the Sri Lanka Astronomical Association, attended the birthday celebration at Sir Arthur's home that morning.

<http://www.spacegeneration.org/node/1439>

International Year of Astronomy (IYA) 2009 Sri Lanka National Node Meeting

An IYA 2009 Sri Lanka National Node committee meeting was held on 1st March 2008. Yohan Ferreira, SGAC Co-NPoC for Sri Lanka was selected to the committee. Several ideas and suggestions for education and public outreach activities for IYA 2009 were discussed at length. Several SGAC brochures and cards were distributed to committee

members. Visit the IYA 2009 Sri Lanka web site at <http://aalk.lakdiva.net/iya2009/> for more details.

Death of Sir Arthur C. Clarke

Sir Arthur C. Clarke, world-renowned science fiction author, Oscar-nominated screen writer, inventor of the communications satellite and visionary, passed away at the age of 90 on 19th March 2008: <http://www.spacegeneration.org/node/1768>

Several SGAC members in Sri Lanka paid their last respects to Sir Arthur: <http://www.spacegeneration.org/node/1773>

Official Media Statement: <http://www.spacegeneration.org/node/1777>

The funeral was held amid a large gathering of friends, family and fans on 22nd March 2008 at the General Cemetery in Colombo 8, Sri Lanka. It was attended by SGAC members Natasha Akolawala, Thilina Heenatigala and SGAC Co-National Points of Contact for Sri Lanka, Thiwanka Jayasiri and Yohan Ferreira: <http://www.spacegeneration.org/node/1847>

Some photos from the funeral are online at: <http://www.facebook.com/album.php?aid=23741&l=8b08e&id=506201972> (This is the public link, so you don't have to be a Facebook member to access the album.)

2nd National Astronomy and Astrophysics Olympiad

The 2nd National Astronomy and Astrophysics Olympiad was held on 29th March 2008 for students under 20 years of age. Those who sat for the 1st National Astronomy and Astrophysics Competition held in 2007 won 10 national awards (2 Gold, 3 Silver and 5 Bronze medals) presented by the National Science Foundation at a ceremony held at the BMICH in Colombo 7. Furthermore, five students who excelled at the National Competition represented Sri Lanka at the 1st International Olympiad on Astronomy and Astrophysics held in Thailand from 30th November - 9th December 2007. The Sri Lankan students in this event won three honourable mentions with the team recognised as the 13th best team! Congratulations to them all! More details: <http://www.spacegeneration.org/node/1729>

New Astronomy Course at the University of Moratuwa

The local astronomy and space community were delighted by the launch of the first ever Astronomy course at a national university! This had been a long felt need as there are presently no degree programmes in Astronomy or Space related fields at any of the 13 national universities in Sri Lanka. The University of Moratuwa began this course in April 2008 with the intention of popularising Astronomy among students of the Engineering Faculty at the university.

Student Signatures in Space (S3) Posters Return to Sri Lanka

Five Sri Lankan schools and the Sri Lanka Planetarium participated in the 2005 Student Signatures in Space (S3) Program, jointly sponsored by NASA and Lockheed Martin Corporation. The signatures flew aboard Space Shuttle Atlantis from 8th June 2007 to



22nd June 2007 on the STS-117 mission to the International Space Station. The 5 S3 posters were returned to Sri Lanka in April 2008 along with STS-117 crew lithographs and NASA flight certificates authenticating the signatures flew in space. Yohan, an S3 Assistant Coordinator and SGAC Co-NPoC for Sri Lanka, acted as liaison. More details about the S3 program: <http://www.spaceday.org/index.php/About-Sub-2.html>

Nalanda College Astronomical Society Stall at Future Minds 2008 Exhibition

The Nalanda College Astronomical Society (NCAS) had a stall at the Future Minds 2008 educational and career fair from 27th to 29th June 2008 at the BMICH in Colombo 7. The wonderful display included several telescopes and outreach material related to astronomy and space exploration. Yohan spoke with several members of the NCAS and the Old Nalandians Astronomical Society, and distributed SGAC brochures and cards to them.

Sri Lanka's Participation at the IOAA 2008

A team of students selected from the 2nd Sri Lankan Astronomy and Astrophysics Olympiad left the country on 19th August to attend the 2nd International Olympiad on Astronomy and Astrophysics held in Bandung, Indonesia, from 19th – 28th August 2008. Full story: <http://www.ip-sl.org/astro/ioaa-2008.html>

Bosco to the Space Generation Congress 2008

Bosco Lawrence was selected as the only Sri Lankan delegate to the Space Generation Congress (SGC) 2008. The SGAC selected 142 youth delegates representing 51 countries for the SGC 2008 in Glasgow, Scotland. Part of the list can be found at: http://glasgow.spacegeneration.org/delegate_list SGC 2008 web site: <http://glasgow.spacegeneration.org>

Annual Water Rocket Competition

The annual Water Rocket Competition organised by the Space Applications Unit of the Arthur C. Clarke Institute for Modern Technologies in Katubedda, Moratuwa was held for high school students.

Royal College Annual Astronomical Workshop 2008

The annual astronomy workshop organised by the Royal College Astronomical Society (RCAS) was held on 11th November 2008 with the participation of over 150 students and teachers from 21 schools in Sri Lanka.

This year's theme was 'Life in the Universe'. An interesting talk was delivered by Prof. Kavan Ratnatunga (President - Sri Lanka Astronomical Association) and a fascinating video lecture about 'Life Beyond Earth' was also shown. The highlight of the event saw around 10 teams of students building antennas and later testing them to detect radio storms on Jupiter. The workshop ended with the distribution of certificates to all the participants and outreach material courtesy of NASA to each school.

Yohan was an invitee and spoke with several of the participants and members of the organising committee. He later distributed several SGAC brochures and cards.



Photos: <http://www.facebook.com/album.php?aid=49227&id=506201972&l=ccdf6>
(Public link)

Video clips from the event are online at:
http://www.youtube.com/view_play_list?p=6593730BC0800ACF

First National Astronomy Meeting (NAM) 2008

The First National Astronomy Meeting (NAM) 2008 organised by the Sri Lanka Astronomical Association was held on 29th November 2008 at the Auditorium of the Sri Lanka Association for the Advancement of Science (SLAAS) in Colombo. The theme was 'Preparing for the International Year of Astronomy 2009 and Popularising School Based Astronomy Education'. One of the highlights of the NAM08 was the launch of the 'Network of School Astronomical Societies', a virtual network for all Sri Lankan school astronomical societies to gather together and enhance interaction between schools. A lecture by professional astronomer Prof. Michael Snowden (University of Canterbury, New Zealand) followed.

Yohan attended the event as a committee member of the IYA 2009 National Node and SGAC Co-NPoC for Sri Lanka. Ten SGAC posters were on display inside of the auditorium, 70 SGAC brochures were given out and many questions answered.

More details: <http://aalk.lakdiva.net/NAM08/>

'Sky Trackers' Facebook group

The 'Sky Trackers' Facebook group for all astronomy and space enthusiasts in Sri Lanka, founded and managed by Yohan, featured many SGAC related news items throughout the year. The group has over 500 members and can be accessed at <http://www.facebook.com/group.php?gid=6265828590>

'Our future is in Space!' SGAC cause on Facebook

Yohan has been able to recruit 149 members in total to the SGAC cause on Facebook: http://apps.facebook.com/causes/1927?m=8c3a5226&recruiter_id=3517724

With 2009 being declared the 'International Year of Astronomy', both Sri Lankan NPoCs look forward to another exciting year for youth space advocates and enthusiasts in Sri Lanka. Ad Astra!





The European Region was active in 2008. We have recruited several new National Points of Contact and elected new Regional Coordinator, Angela Whitesides. However, most importantly, youth space advocates representing seven countries within the SGAC European region came together to suggest, develop and draft out concrete projects that would increase pan-european youth involvement in the region's space activities.

"Space advocates needed to travel to Europe and discuss issues that matter to them - food and shelter provided. Bring bags of ideas and a sleeping bag" - in a gist, this was how the European RC Jesper Jorgensen announced the idea of the SGAC European Summit that takes place in Copenhagen from 28-30 March 2008. Space enthusiasts from Germany, Austria, UK, Spain, Poland, Belgium, Denmark took upon this invitation and traveled up to Copenhagen by creatively coming up with cost-effective travel arrangements - what brought them was a strong desire to learn in what areas can they collaborate as NPoCs, Exec members or even without an official position in Europe's youth space activities.

Over the 3 days, NPoCs learnt how SGAC works and how it impacts the international scene of space policy, education and inspiring the youth. They analysed the issues that face SGAC and worked to derive solutions to them. Creative workshop and project ideas that would enhance pan-european youth involvement in space activities carried out by National space agencies, ESA, other international bodies and student groups.

Several space enthusiasts who could not join us for this event but sent in the support for the initiative would be happy to know that there will be a strong push to have more of these meetings.

Austria

As home to SGAC's headquarters, Austria is very lucky as the country ends up hosting many SGAC events. 2008 was no exception. Both through the UN and independently of the UN, the Austrian Space Generation was very active.

Space Generation Outreach Event, 15th January 2008

The Vienna University Institute of Sinology hosted local young space enthusiasts in an outreach event. The event was organised by the SGAC National Point of Contact (NPoC) in Austria, Manfred Steinkellner and Professor Johannes Ortner, who encouraged all space young enthusiasts to continue with their activities and ambitions in Space, delivered the opening speech. Following, Nassim Bovet from the International Space University (ISU) talked about the opportunities offered by ISU such as the two Master Programmes M.Sc in Space Studies and M.Sc. in Space Management and the Summer Session Programme.

SEDS Austrian students receive support by SGAC during the UN COPUOS, 13th February 2008

Space Generation Advisory Council represents the global youth in front of the United

Nations as well as other international institutions and governments. On Feb. 13th Alexandra Ruths and Paul Schmitzberger of SEDS Austria took advantage of the SGAC's Permanent Observer Status with the UN COPUOS and made a technical presentation under the UNISPACE III agenda item at the Scientific and Technical Subcommittee: 2008 Forty-fifth session. The Austrian SEDS students made a presentation titled, "Bridging the gap or why students of the 21st century no longer reach for the stars."

SGAC/ISU Alumni Gathering in Vienna, 13th June

On June 13th SAGAC together with ISU organised a gathering in a traditional wine cellar in the city centre. The evening truly was a success with over 50 guests attending. Special guest, President of ISU, Mike Simpson gave a speech concerning ISU and its activities. Guests included SGAC members, ISU Alumni, COPUOS delegates, Ambassadors and high level officials.

SGAC – Extended cooperation with ESPI (European Space Policy Institute), 20th June 2008

ESPI has been hosting the SGAC for the past three years in its premises in Vienna. Through this, cooperation emerged in various fields leading to cross-participation and presentations in events as well as publications. By renewing the cooperation agreement on 20th June, both organisations ensured continuation of close work and successful partnership.

SGAC National Point of Contact for Austria – Internship with the Chairman of the UN COPUOS, 22nd September 2008

Due to the fruitful cooperation with the United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) SGAC Executive Office was approached by the Chairman of the committee, Ambassador Ciro Arévalo, to identify young space enthusiasts who would be given a unique opportunity to intern for the Chairman. Austria's NPOC, Alexandra Ruths, served in this capacity.

National Point of Contact for Austria – Member of the SGAC Communications Team, 25th- 27th September 2008

Austrian NPOC, Alexandra Ruths, joined the SGAC Communications Team during Space Generation Conference in Glasgow. She works in close cooperation with Daniela Petrova, Communications and Public Relations Team Lead, on the SGAC monthly newsletters, media strategies for SGAC and communications strategies for the upcoming SGC 2009.

SGAC and ASF cooperation for World Space Week, 9th October 2008

Austrian Space Forum (ASF) organised together with the help of SGAC a World Space Week event at the United Nations in Vienna, Austria. Agnieszka Lukaszczyk, Maryam Aljoaan, and Alex Karl from the Space Generation, as well as former SGAC-founding members Norbert Frischauf and Gernot Groehmer who both now represent ASF were present and actively involved in the event. A total of around 100 local school children were invited to the UN to participate in this year's World Space Week celebrations at the home of UN OOSA and UN COPUOS. A patch of Mars was set up near the main entrance to the UN building for the kids to explore the unknown environment. A parallel lecture gave the kids insight into what a Mars mission would be like.

SGAC meets Malaysian Astronaut, Dr. Sheikh Muszaphar, in Vienna, October 27th 2008

Dr. Sheikh Muszaphar was visiting Vienna on Monday to present the UN badge he took to space with him to the Deputy Director General of the United Nations Office in Vienna (UNOV), Mr. Franz Baumann. SGAC Executive Officer, Agnieszka Lukaszczyk, had the pleasure to meet with the Malaysian Astronaut, Dr. Sheikh Muszaphar, and introduce him to the activities of the SGAC. During his stay in Vienna, Dr. Muszaphar showed great interest in SGAC and its activities.

SGAC presents at the ESPI/SWF/IAA conference on the Fair and Responsible Use of Space in Vienna, 20th November 2008

The two day conference entitled "The Fair and Responsible Use of Space: An International Perspective" was held by the European Space Policy institute (ESPI) with the Secure World Foundation (SWF), represented by its Executive Director Ray Williamson and the International Academy of Astronautics (IAA) represented by its Secretary General Jean-Michel Contant, in the premises of ESPI in Vienna. The three panels offered a unique opportunity for a dialogue with decision-makers and representatives of the space community, with the high-level participation of Ambassador Ciro Arévalo (current Chairman of UNCOPUOS), who gave a keynote raising – for the first time in public – the idea for a UNISPACE IV conference and the establishment of a UN space policy. SGAC Executive Officer, Agnieszka Lukaszczyk, made a presentation on behalf of SGAC titled "Involving the World's Youth." Several SGAC members attended the conference including the SGAC Chair, Alex Karl, as well as the SGAC Treasurer, Michael Brett.

Belgium

Belgium is very lucky when it comes to the space sector. There is a lot of interest from the public, from all ages, but there are also a huge number of activities organised by as many organisations. Having two astronauts in our country is certainly an asset to this interest. Because of these many high quality events, organised by both professional and non-professional organisations, it is somewhat difficult for the NPoC's to host even more events. So instead we try to advertise as much as possible for these events, and spread info over the SGAC and its international activities.

European Summit

From 28 – 30 March, Pieter and Pieter Jan, the two NPoC's for Belgium attended the European Summit. Although at that point Pieter was not yet an NPoC (see further). This Summit was held at Kopenhagen, Denmark and was hosted by European Regional coordinator Jesper Jørgensen. Together with SGAC's chairperson, co-executive officer, secretary and other NPoC's outlines for SGAC's future were discussed. It was a fruitful gathering in a magnificent city, and we both had a great time.



Drinks and snacks at the start of a working evening during the European Summit

New National Point of Contact

In April, after attending the European Summit, Pieter Byttebier became Belgium's second NPoC, joining Pieter-Jan Van Asbroeck.

Earth and Space Week

During Earth and Space Week the Euro Space Society, founded by Belgium's first astronaut Dirk Frimout, wanted to educate young people about Space and Earth related topics.

On Thursday April 10, for example, the University of Ghent hosted a theme afternoon for the youth about space. In the evening they welcomed our two astronauts, among important others, for some lectures and debate, followed by a reception. This event was free and the attendance was enormous, among them the two NPoC's. During this event the Flemish Secretary of Science Ceysens announced that she wants to involve the youth more in the Space industry, which is an important sector in Belgian industry. She worked ideas out together with Frank De Winne, Belgium's second astronaut. We are expecting a lot of new activities and competitions in the following months.

EUROAVIA

EUROAVIA is the aerospace student organisation in Leuven and Brussel. Both the NPoC's are board members. Euroavia organises many Aerospace related lectures and visits each year several aerospace related companies. They also help students to make contact with the Space Industry. In 2008 the purely space related activities were a lecture about the Ariane Rocket, and a lecture about the ISU.

Frank De Winne

During 2008 the news became spread that the second Belgian in Space, Frank De Winne, will be returning to the ISS in May 2009 for 6 months. During the mission called OasISS he will perform several tests in the European Columbus lab, and he will also work with the canadarm on the station to install the new Japanese laboratorium. In November was announced that he will be commander of the Space Station for the last two months of his mission, so becoming the first European commander of the station. A huge honour for our little country, and many organisations have started

organising events and competitions for this. 2009 will become a very interesting year for Belgium in Space.

Other Miscellaneous Activities

- Each year in January (and no else in 2008) observatories great and small all over the country organise the 'National Star-gazing Days'. For two days extra efforts are made to welcome the public in the many observatories and planetaria Belgium has.
- At the end March local governments ask to dim all lights for one night, and also most of the streetlights go out. In that way the enormous light-pollution in our regions is reduced for on day and gives the public a wonderful view of the sky. Many observatories have special programmes on this day.
- In October Wallonie Espace organised the second Space Days in Liège. These are intended to provide an opportunity for the European space community to discover the *savoir-faire* of Walloon enterprises and university laboratories in the sector, and create contact possibilities between the very rich Belgian Space industry and the academic space related world.

Croatia

Several projects related to the promotion of the space science continue to grow in 2008. In addition, individual efforts by space enthusiasts contribute on local scale to popularization of space and general education of the public.

Croatia remains a country where all space-related activities are driven by enthusiasts and individuals with some help from the academic environment. Mainly because of lack of funding, government cannot directly support space program. As an EU candidate country, Croatia is not a member of ESA (European Space Agency), nor any other major space agency, which makes any national programs virtually impossible.

Astronomy (both amateur and professional) and various fun clubs (of space, SciFi) provide only opportunity for organisation of space-related activities, as well as an indirect link between the general population and space enthusiasts. With more widespread space tourism, there are possibilities for Croatia to become a host for such industry in the future, given the existing infrastructure.



Major projects in 2008

“The Sky as a Gift” / “Nebo na poklon”

<http://nebo.znanost.org/joomla/index.php?lang=en>

“The Sky as a Gift” is a nationwide educational project for primary (up to 8th grade) school students interested in astronomy and space organised by non-profit government

organisation. Scientific method and basics of astronomy are taught to selected students. The best participating group and individual students are awarded telescopes. Many organisers are professional astronomers or scientists themselves, as well as involved with the promotion of Space among general public. The project has been very successful and the organisers feel that one of the most efficient ways of transferring their passion about space is by teaching interested primary school students.

The project is organised by a non-profit NGO “znanost.org” and in partnership with “Physical Society Split” and astronomical societies AD “Korenica”, AD “Beskraj” and AD “Giordano Bruno”. Project director and the main organiser of “The Sky as a Gift” is Ana Bedalov. In 2008, 32 primary schools from different cities participated in the project.



“Star Party” was organised in the end of the event, on May 3rd in Zagreb, Croatia as a public event that included all participants and their parents, guest lecturers and general public. The “Star Party” has been covered by major Croatian newspapers.

Visnjan School of Astronomy - VSA 2008
<http://www.astro.hr/vsa2008/index.html>

International 10-day school of astronomy for high school students was organised in July in town of Visnjan, Croatia. Korado Korlevic, the director of Visnjan Observatory has been organising summer schools in astronomy (and recently other sciences such as astrobiology) for last twenty years. 15 students from Croatia, Italy, France and Switzerland attended the school in 2008.

Major sponsors that made VSA 2008 possible are Vip net, Vecernji list, Coca Cola Croatia, CARNet, Croatian Ministry of Science & Education, Elementary school Joze Surana (Visnjan) and the Region of Istria.

Astrophysics Initiative in Dalmatia
<http://www.aphyid.org/>

As part of the ongoing effort to advance the science of astronomy and space in the Croatian region of Dalmatia, the astrophysics program at the Physics Department in Split, Croatia has started. In the fall semester of 2008, a series of public lectures, some by leading scientists from institutions such as MIT, Harvard and NASA JPL, was successfully organised.

Space Tourism in Croatia - Developments

An arrangement that allows local booking of tickets on suborbital flights between Virgin Galactic and Zlatko Starcevic, a resident of Osijek, Croatia, has been reached. This may lead to a first Croatian in space as early as 2010. So far no Croatians have traveled to space.

In addition, several potential investors have started further analysis of possibilities for establishing future space tourism in Croatia, based on the feasibility study done by T.

Buric and L. Bojkic under the supervision of B. Pecnik at the Dalmatian Space Summer 2007 (http://www.space-forum.org/files/Svemirski_turizam_studija.pdf).

Local activity

Society of Amateur Astronomers “Beskraj” organised two star parties (3-4 April, 29-31 August) for Croatian amateur astronomers. It included a workshop on observation of transiting exoplanets.

Denmark

General Danish Space Review

Denmark is a member of the European Space Agency (ESA) and is a participant in diverse satellite programmes and in limited parts of the research on the International Space Station. It has been discussed to participate more in ESA, but a political willingness to go further into space projects is limited across the political spectrum. Further, space is not a priority in the government and Ministry of Science, where bio fuel, climate and nanotechnology have first priority. The effect of this prioritization is obvious in the education sector, where astronomy and space science are almost absent from kindergarten to high-school in Denmark. If children do not have space sciences integrated into their education now, in the future, we will see the ramifications. We will see the lack of aero-astro engineers and space supporters in the future.

A campaign was run to select a Danish astronaut candidate this year, but unfortunately, it was unsuccessful. A Danish candidate was chosen during one of the last selection cuts for the Mars500 project and could, if selected to the final crew, heighten the interest for manned spaceflight. The Ministry of Science has made it clear that only if a Danish candidate is selected would further involvement in Mars500 be interesting.

SGAC Activities in Denmark

The main activity this year was Yuri's Night run at the Danish Film institute and the Cinemateque in cooperation with the Russian Embassy. The programme consisted of two lectures about space flight research and the use of science fiction in the generation of ideas for future missions. After the lectures, the film ‘Cosmic Voyage’ from 1936 was presented for the first time outside of Russia, and it was accompanied by electronic music by Rumpistol. After the film, there was a party run by Russian DJ Aienn that also included an exhibition of photos from early and present Russian space programmes. The event was attended by many young persons from cultural and musical networks.

Norway

There have been many space activities in Norway in 2008, but unfortunately, SGAC has not been leading them. The issue is that there already are many space activities and inspiration among young people in Norway, particularly Oslo. Therefore, SGAC has heavy competition. The recommendation, therefore, is that SGAC should integrate itself into more of these outside events such as the annual Science Days and Astronomy Festival.

Portugal

Portugal saw some interesting youth space events in 2008.



• **SSETI-IST participation at IST activities exhibition.**

The Student Space Exploration and Technology Initiative (SSETI) student group at Instituto Superior Técnico (IST) had the chance to show their work in the ESEO project to all students and professors at that university.

The exhibition took place on October 6th-8th, at the main hall of the university, and allowed showing some practical experiments being carried and even some of the attitude determination prototypes under development for the satellite. A Portuguese space company, Lusospace, whose founder was previously involved in SSETI, also participated with a presentation of the company and their current activities. More information can be found in <http://sseti.ist.utl.pt>.

• **ESA Astronaut Recruitment Informative Session**

The European Space Agency (ESA) opened, in late May, a call for applications for astronaut recruiting. It was opened for all member states, for the first time in 16 years and the first time for Portugal as well. The goal was to recruit at least four new astronauts to join the current crew of eight, for missions to the International Space Station (ISS) and “beyond”.

FCT, a governmental institution for science and technology, together with ESA, organised an open session in Lisboa to present the call and to provide some clarification to those interested in applying. It counted with the presence of the head of the Astronaut Centre, a German astronaut and a Portuguese space biomedical researcher.

In the end, there were a total of 220 applications from Portugal, of which 192 were men and 28 were women, resulting in 2.5% of the total of applications. The number is significant but far from ideal.

• **SSETI ESEO AOCS 4th Mini-Workshop**

The Student Space Exploration and Technology Initiative (SSETI) has started inside the European Space Agency Education Department and is now an independent student association with three projects supported by ESA, joining students from universities all over Europe to design, build and launch micro-satellites. ESEO is an earth orbiter, has started in 2000 and is now preparing for a Preliminary Design Review.

In Portugal, there are several teams participating in the SSETI projects, spread among different universities. The Attitude and Orbit Control Subsystem (AOCS) team belongs to Instituto Superior Técnico, in Lisboa, and is responsible for determining and controlling the orientation and orbit of the spacecraft.

On last 23, 24 and 25 of July, the AOCS students involved with this project organised themselves to gather during three days after the summer exam period, to advance in their work and compensate for the lack of dedication during the exams. It was the fourth time such workshop was organised and it normally involves interaction with professors and sometimes industry, which provide some of their experience and knowledge to guide the students on their tasks. More information can be found in <http://sseti.ist.utl.pt>.

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to all students and professors at that university. The exhibition took place on the 6th, 7th and 8th October, at the main hall of the university, and allowed showing some practical experiments being carried and even some of the attitude determination prototypes under development for the satellite. A Portuguese space company, Lusospace, whose founder was previously involved in SSETI, also participated with a presentation of the company and their current activities.

Romania

In 2008, the main space-related youth event in Romania was the World Space Week. The Romanian Space Agency has coordinated the celebration of this event each year since 1999. The Romanian participants have enthusiastically embarked in the quest of “exploring the Universe” with their imagination, the theme of this year’s WSW. The age range of the participants has been very diverse – from kindergartners who helped bake stellar cookies in Oradea, to a pensioner who built a model airplane/rocketship in Bazna; most of the participants belong, nonetheless, to the pre-school, school, and university student age group. WSW events took place in many cities and villages throughout the country; in the city of Cluj-Napoca, host of several space-related events, high school students “occupied” a street and transformed it into a “Solar System Boulevard”. The imagination of the participants was boundless, events ranging from space-themed chalk drawings on the streets of Romanian villages, to Space Carnivals, to water-rocket launches and to movie projections. It is most remarkable that most of the event organisers were women, and this is entirely due to their sheer enthusiasm. All in all, WSW 2008 has been a huge event in Romania, placing our country as a global leader in space outreach. A blog of the events can be seen at <http://wswromania.blogspot.com/>. 2008 has also been the preparatory year for the International Year of Astronomy, and it is envisaged that many Romanians will participate in this event under the banner – “The Universe- Yours to Discover”, as well as in the Yuri’s Night celebrations on April 12th.

Spain

Spain had many well attended space events in 2008.

1st International CanSat Competition

This competition was organised in April by LEEM (Laboratorio para Experimentación en Espacio y Microgravedad, www.leem.es). This inaugural event had 12 teams participating, ten of them from different regions of Spain and two from Malaysia. Every team had the task of designing, manufacturing and operating a CanSat which had to demonstrate its ability to perform a mission. The CanSats were categorized as follows: Open class, Comeback, Telemetry and Scientific Experimentation. The contest was backed by UPM (Polytechnical University of Madrid) and sponsored by INTA (National Aerospace Technical Institute), among others.

Eleven successful launches took place on April 11th, in the Fuentemilanos Aerodrome, with CanSats onboard the LEEM RK-10, manufactured by the LEEM Rockets Division. Attending were several well-known personalities, such as a representative of the Board of directors of Official Professional College of Aerospace Technical Engineers of Spain (COITAE), the Ambassador of Malaysia in Spain, the Vice-Rector and Teachers of the University Industri Selangor (UNISEL), and a french representation from CNES and Planète Sciences.



Prizes were given on April 12th, and at night the teams closed the first International CanSat Competition with the celebration of the International Space Party, "Yuri's Night".



3rd Annual LEEM Congress (Spanish Space Students, S3)

This third S3 was held in Zaragoza University during 27th and 28th of November, organised by LEEM and hosted by APSIDE (<http://sseti.unizar.es/web/nosotros.html>). More than 250 people attended the Congress, making this edition the most successful one.

The Congress offers the students the opportunity to share the results and the experiences of their projects, and to establish contact with members of the industry. It included the presentation of different activities carried out by LEEM, as well as future projects to be performed. Different Space projects performed in Spain were also addressed, such as the Ingenio-SEOSAT satellite project.

In addition to this, the European Space Agency (ESA), the National Institute for Aerospace Technology (INTA), the European Low Gravity Research Association (ELGRA) and the Space Generation Advisory Council (SGAC) presented their educational programs and the National Research Council (CSIC) summarized the Biological Microgravity Research Activities in Spain. SGAC presentation was performed by Maite Trujillo.

Space Workshop for Disabled People

During the month of June, LEEM and Fundación Magdalena organised this workshop with the objective of bringing space closer to intellectual disabled people. The topics included: the Earth, our planet; Beyond the Earth, the Solar System; our Galaxy and the far Universe. Results were shown at the International Astronautical Congress in Glasgow.

SSETI

An APSIDE-LEEM team is currently working in the SSETI Project (Student Space Exploration and Technology Initiative). In particular, APSIDE is part of the Mission Analysis team, performing duties such as establishing optimal orbital parameters, ground station coverage, or eclipses and sun angles calculation.

Un paseo astronómico / Una ventana al espacio

APSIDE organises two exhibitions, “An Astronomical Walk” and “A Window to Space,” aimed to raise space awareness among the youth, including kids and teenagers.

“An Astronomical Walk” presented the young kids a first introduction to astronomy, an approach to the Solar System and a first contact with Astronauts. “A Window to Space” gave the youth an introduction to four topics: Europe and Space, Taking Care of Our Planet, Beyond the Earth, and Being an Astronaut.



Switzerland

Despite Switzerland's size, the country had some interesting and important space events in 2008. Early this year, the European Space Agency announced its plan to select four new European astronauts and four backup astronauts. Two events have taken place in Switzerland to officially launch the selection campaign in the country. Switzerland was also one of the first ESA member country to hold an event to promote this new round of selection. The first event took place in the French-speaking part of Switzerland, at the Ecole Polytechnique Federale's Space Center, in Lausanne on 1 April 2008. The second event took place in the German-speaking part of Switzerland, at the Eidgenössische Technische Hochschule's Space Biology Group Institute in Zurich on 8 April 2008. Both events witnessed major interest from youngsters, students and young professionals who had the potential background to apply.

The other major space event of the year was the yearly Space Days. The 2008 edition, organised as each year by the Swiss Astronautics Association, this time took place in Zurich. The Swiss Space Days aim to bring together experts and specialists from the space industry, official representatives of the National Space Office, enthusiasts from various space advocacy groups and students together with the public and schoolchildren.

During the two days of the events youngsters from local schools had the opportunity to meet with professionals of the space sector, as well as with ESA astronaut Claude Nicollier. Presentations focused around, amongst others, the current space missions, space biology experiments, the search for life in outer space and space tourism.

Ukraine

There was significant SGAC activity in Ukraine. The NPOC, Olga Stelmakh, attended COPUOS in June. During the summer, Olga attended the International Space University's Space Studies Program where she had an opportunity to share her SGAC experiences and do outreach for the Council. During the fall, she also attended IAC in Glasgow. During 2008, Olga also was selected a member of the Young Professionals Council of the Ukrainian Space Branch, where she has the opportunity to promote SGAC. Additionally, SGAC Ukraine has executed a couple of youth educational and outreach space projects. Ukrainian SGAC members have also provided language translation support for the World Space Week Association. Finally, throughout the year, Ukraine has contributed to the SGAC newsletter.



United Kingdom

There was significant SGAC activity in the UK this year that we are proud to report on.

Articles for Spaceflight Magazine

Spaceflight is the international magazine of space and has been in print since 1956. Published on a monthly basis by the British Interplanetary Society (BIS), Spaceflight has long been recognised as a prime source of information on international space programmes and commercial space exploration and has been forefront of space exploration ever since its first issue.

As an action taken out of a meeting held with BIS executive members, UK NPoCs Rishi Sharda and Angela Whiteside agreed to write 6 articles for the magazine to start in the March issue, pictured on the left.



The articles (based upon information published on the SGAC website) were carefully planned and edited by both NPoCs to provide an introduction to readers a selection of initiatives within the SGAC. The articles covered the following topics:

- March – Introduction to the Space Generation
- April – Celebrating Yuri's Night

- June – Space Generation Congress 2008
- May – 50 year vision for space exploration
- July – Near Earth Objects – are we at risk?
- August – MoonMars Workshop

On completion of the suite of articles the editor of Spaceflight offered the UK NPoCs a long term opportunity to submit articles to the magazine of SGAC activities on an ad-hoc basis. The articles published during 2008 will be uploaded to the UK National page in due course.

Space Generation Congress

The SGC was held in Glasgow in parallel with the 2008 International Astronautical Congress. As one of few UK SGAC members, Rishi endeavoured to support Kevin Stube (SGC Event Manager) in the planning of the congress. This involved contacting potential sources of funding/ sponsorship from local Glasgow organisations and potential speakers to present during the congress. Rishi (along with Angela Whiteside) also supported Kevin's initial visit to Glasgow in February 2008 by meeting him and joining him in his search for conference facilities and residential locations.



Rishi attended the SGC during September 2008 and was involved in the MoonMars Workshop: Case for Human Exploration.

This project involved the evolution of legacy 'case4space' initiatives, by developing answers to the question, "Why are humans necessary for the exploration of space". The outcome was the creation of a short video campaign targeted at non believers of space exploration.

Attendance to Royal Aeronautical Lecture: What is Needed to Extend Life Permanently Beyond Earth? With Elon Musk, July 2008



As a member of the Royal Aeronautical Society Space Group, Rishi attended a lecture by Elon Musk, CEO SpaceX, to discuss the possibilities of permanently taking life beyond Earth and why we should seek to achieve it in this century.

"For the first time in the four billion year history of Earth, there exists the possibility of extending life beyond Earth to other planets. It

is difficult to predict how long that window will remain open".

Elon Musk

Where possible Rishi spoke to audience members and discussed the projects and initiatives in progress at the SGAC which too explore the lecture topic and similar themes.

Attendance to British Interplanetary Society Lecture: Mars Society UK



The British Interplanetary Society hosted the Mars Society UK during summer 2008 to discuss current and future activities.

Discussions were also held on the needs for future analogous research stations. During the open questions session Rishi Sharda commented on the projects undertaken within legacy SGAC MoonMars Workshops on planetary habits and the importance of Human Factors in planetary spaceflight.

Objectives for 2009

The following are objectives for 2009 in continuation of NPoC duties:

1. Pursuit of Sponsorship for SGC 2009 – To support the SGAC organisation team, the NPOC aims to pursue sponsorship opportunities within the UK and liaise with the sponsorship committee to ensure effective communication with industry.
2. Encourage publicity opportunities – To develop opportunities of exposure of SGAC activities through magazine publications or presentations at national conferences and ensure all activities are coordinated with the SGAC communications team.
3. Attendance to national space events as SGAC representative and where possible promote SGAC to event participants. Events planned for attendance (but not limited to) are as follows:
 - Attendance to UNCOPOUS S&T meeting in February 2009
 - Attendance to UK Space conference in April 2009
 - Attendance to SGAC 10th anniversary in June 2009
 - Attendance to SGAC & IAC in October 2009
 - Attendance to UKSEDS conference in September 2009



Middle East

2008 was a relatively successful year for Middle East. The activities in Astronomy and Space are growing in different countries in Middle East, despite the ongoing instabilities in politics. In SGAC, this year many changes have taken place in NPoCs and RCs. Maryam Aljoaan and Halit Mirahmetoglu in December gave their place to Mahsa Taheran, the former NPoC of Iran and Aysegul Tansen. In 2008, Regional Coordinators tried to extend the SGAC youth activities by finding new NPoCs in other countries of the region. Following these changes, the regional and national pages have been updated. The transition is successfully going on and new activities are being planned by new coordinators and new points of contacts.

The SGAC activities in Middle East were followed in Turkey, Iran and Kuwait, the detailed report of which is given here. Different Astronomical activities were done with the participation of space enthusiast, including extensive activities for the World Space Week and Yuri's night. In Iran, the youth are getting more involved in the educational activities, along with the promising policies of the government to invest in Space related activities, which is clear in the launch of Iran's first domestic satellite launch at the end of 2008. To continue in this way in 2008 it is decided to establish Astronomy undergraduate programs in Iran for the first time. Another important event in the region was the Global Space Technology Forum in United Arab Emirates, which can lead to a great motivating power for space industries in the region and also for further increase in youth participation in space activities. This event took place in November 2008.

Iran

The space related events in the last months of 2008 were focused on organising the future work for the International Year of Astronomy. And to open the International Year of Astronomy, we decided to celebrate it a few days sooner, with the Ancient Persian Celebration of the longest day of the year on 17th of December, 2008. On this night several panel sessions and public programs took place to make people more aware of the International Year of Astronomy.

The major goal of the activities, as members of SGAC, is to increase the public knowledge of space, and increase the participation of space and astronomy enthusiasts. To achieve these goals, in the last months several workshops has been organised to take place in 2009. History of Space Era, Exhibition of the space achievements and spinoffs, exhibition of the achievements of Iran in astronomy and space, workshop about ISS, and a panel session on the role of space activities in peacemaking efforts in the region are part of these activities.

In 2008 the following activities were done successfully:

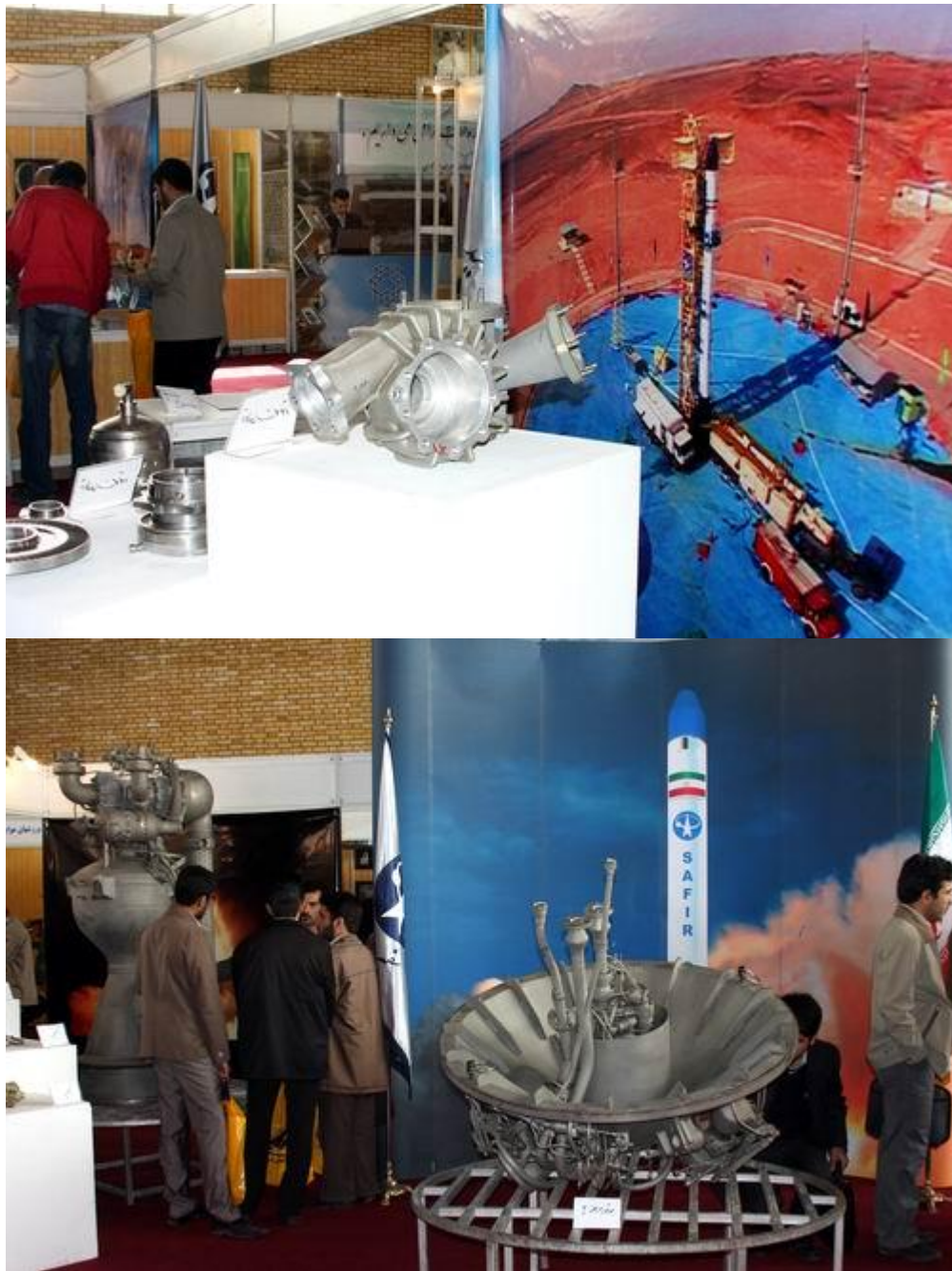
- Visits to the space industry in the country
- Workshops and exhibitions on the history of space technology and astronomic activities



- Participation of Iran NPoC in the 8th National Space Conference, 16-20th February
- Using the web page www.parssky.com to increase the public awareness of the achievements of Iran in this field and the current activities in the country
- Starting a new web page in Farsi language to support the activities of SGAC and promote it in Iran
- Publishing an article in the Iran Space Agency Journal on the activities of SGAC

The following pictures are from one of the Space Exhibitions that took place during this conference in Isfahan.





Omid satellite:

The most important news in late 2008 and start of 2009 was the national effort to launch the first domestic satellite successfully. This is a perfect opportunity for us to use the increased interest in space of public and governmental organisations to promote the space science and space technology in the society.

Iraq

In Iraq, in 2008, we have spent most of our time observing other space programs and developing outreach materials. We are interested in the news which talk about Iran's satellite (Omid satellite). We learned initial scientific information about this satellite and which have scientific features (satellite components and orbit) this operation develop Iran technology in space (who Iran made this satellite locally) the launched rocket, the satellite engineering system, the earth control system, the communications system and

its programming and how Iran government used the professors experience and students research in their universities to develop this technology.

In the previous days, our group preparing initial patterns about the notebook which we want to print and deliver to schools of all levels with the support of national scientific organisations: elementary, secondary and university. We also have been looking into developing a group that reviews scientific titles about astronomy and publishes its reviews. Our ability to do this will depend on the Ministry of Culture.

Kuwait

Space activities have been developing nicely since 2005 when the Astronomy Department of Kuwait Science Club activated. SGAC have been active participants and this certainly was the case in 2008. Most activities of Astronomy Department were related to astronomy field such as observing through telescope, holding eclipse events, astronomy camp, etc. However in 2007, we expanded the department to space activities, and changed its name into "Department of Astronomy and Space sciences" or "DASS". Department of Astronomy & Space Sciences (DASS) is one of the primary departments at Kuwait Science Club. We aim to spread scientific awareness in the fields of astronomy and space sciences by actively engaging the public in exploring the cosmos.

We still continue our space and astronomy activities in this department. We have done some valuable space project during this expansion. Rerunning planetarium and holding space fair are one of the most important projects we have done. Our outstanding project is radio telescope which is expected to be finished next year.

World Space Week:

One of the most important events related to space in Kuwait is the World Space week, this year the WSW was completely organised by Q8 SEDS and it was postponed one week because of the (EID ALFETER) and the (HOLY RAMADAN). The 2008 Kuwait World Space Week program was divided into three days, the first day which was opened by Muna Anbar (Manager of the Department of Astronomy and Space Sciences DASS) consists of an introduction about the history of the WSW done by Ghanim Alotaibi the Q8 SEDS president, the second presentation was about "What benefits did NASA offers to the society" Which Done by Maki Ebrahim and finally the WSW first day ended with a discussion between the audience and SEDS members about "Why Kuwait needs to Establish a Space Program."

The second day a movie which called "Mission to Mir" was presented in the Department of Astronomy and Space Sciences with time duration about 45 minutes and in the end of the movie a competition was done about the content of the movie with three winners.

A presentation about "the origin of the astronomical phrases in Arabic language" was presented by Dr. Bader Alyousef the presentation was about 45 minutes long, and by this presentation it was the end of WSW 2008 in Kuwait.

During WSW, some of our staff (members of astronomy and space department in Kuwait science club) gave presentation about space knowledge for students in some schools.



World astronomy week:

We have held world astronomy week since 2005. WAW events chosen between the late April and the early May depend on moon phase. We hold WAW programs in the public places, and also the event includes observing the sky objects through telescope, astronomy-related competitions, kid's painting, etc.

Summer kid's space training:

We hold space program for kids in the summer to introduce them with space knowledge.

Establishing SEADS in Kuwait:

Q8 SEDS, tried to establish another branch in Kuwait University College of Engineering and Petroleum, the importance of the new branch it will be easier to reach the students and start activities inside the campus of the college of engineering and petroleum so that more students will be attracted, but the establishment will never take place before January 2009, and it was agreed about SEDS opening plane and SEDS structure in the new location.

Finalizing a paper about "Establishing a Space Program in Kuwait" with the cooperation of Dr Hala Aljassar from Kuwait University, this paper will be the voice of young people in Kuwait who are interested into space field, because this paper is focused to persuade the leaders in Kuwait to establish a space program. It was agreed that SEDS members will present a bi-weekly presentation in any topic about Space exploration, the idea behind the bi-weekly presentation is to improve the knowledge of the members about space, and to make an archive so that SEDS members will have a ready collection of presentations related to space.

Maintaining planetarium in Kuwait science club:

Kuwait science club under our supervisory maintained planetarium to develop our space-related activities. In new planetarium, high technology system is used to increase the quality of show.

Contacting international space station staff:

For first time in the Middle East, Maryam Aljoan ex-coordinator and Kuwait NPoC reached success of contacting with ISS staff. She does the contact with ISS staff for students each year.

Radio-telescope under construction:

Kuwait science club members are working to install and run radio-telescope system.

Turkey

The Construction Project of Turkey National Radio Astronomy Project was conducted properly since 2007. The year 2008 was a big success for The Construction Project of Turkey National Radio Astronomy Observatory. Ground studies have been completed in 2008 and the project made ready for the construction and now waiting for funding approval. While National Radio Astronomy studies continues, ERAO (Erciyes Radio Astronomy Observatory), which is used for training students for a future National Radio Astronomy Observatory, has technically completed by the year 2008.



March

METU (Middle East Technical University) invited NASA Astronaut Shannon W. Lucid on 13th of March. METU-AAT (Amateur Astronomy Club) and METU Career Center organised event together. Lucid interviewed about, how she became an astronaut and took place in space program.

April

On April 12th, Yuri's Night '08 celebrated in Kayseri which was organised by Aster (Astronomy Club of Erciyes). The Yuri's Night party which has an attendees of 650 people, started around 6 pm local time. Hülya Memiş who is the cochairman of the club gave some information about Yuri Gagarin and Yuri's Night events. After a series of presentations and videos, the rock band Despond took place in the stage. When the concert is over, people enjoyed open air disco with DJ Mustin till midnight. During whole event club members introduced the night sky to the people with the telescopes set up.

May

İÜFFAAK (Amateur Astronomy Club of İstanbul University Faculty of Science), organised the 17th Traditional May Festival on 29-30 of May in İstanbul University. The event had mainly two sections: Space & Astronomy Education for Kids and Lectures on General Astronomy & Space Activities. Club members gave lectures on space activities conducted around the world. There were also planetarium sessions and model spacehips has gifted to children.

September

The one day Radio Astronomy Conference for National Radio Astronomy Observatory was held during the National Astronomy Congress on 9th of September. Project Committee gave reports to the astronomers who has joined and invited. Future plans and projects about the observatory has been discussed during the conference.

October

World Space Week celebrated in 11 cities around the country. Türksat Corp. made the call "Discover the Universe" and reached thousands of students with "Discover the Universe" activities. During the week Türksat Corp. organised the competition "Hezarfen Model Spaceship" among the students. Before and during the week announcements and presentations made on TRT (Turkish Radio and Television) Radio.





North, Central America & the Caribbean

Our region is made up of 35 countries and dependencies located in North America, Central America and the Caribbean. Our activities are administered by two Regional Coordinators, Israel Ojeda Coronado and Rob Guinness. In addition, nine National Points of Contact proudly represent a handful of countries in our region.

We had a great 2008 but we are always looking to increase the number of NPoC's due there are only seven out of the 35 countries with active members. This year we continued a number of exciting on-going projects. Our region started the educational project called, InspireSpace. Also, as a strategy to improve our interaction with the audience we are working to setup our group in Facebook. Further, we will combine a blog to encourage specialists to share their experiences to motivate the younger generations and to expand their knowledge in that field.

Canada

The past year has also seen a connection with other space groups in Canada. A resurgence of SEDS Canada has led to more interaction between the two groups. And as always the Canadian Space Society remains very active, holding events and maintaining discussions pertaining to the advancement of Canada's space sector.

We have also participated in a handful of successful events in 2008 in Canada. The 2008 Canadian Space Summit Resounding Success, for example. On November 21st to 23rd, 130 professionals, government officials and academics attended the 8th annual Canadian Space Summit presented by the Canadian Space Society and held at McGill University. This year's Summit theme addressed a pertinent question on the minds of many in the industry, "What's next for the Canadian space industry?" With topics ranging from astronomy to Earth orbit operations to the need for a comprehensive national space policy in Canada, there was no lack of discussion to address this ultimate question.

Another event was the 37th COSPAR Scientific Assembly in Montréal held 13 - 20 July, 2008. COSPAR's objectives are to promote on an international level scientific research in space, with emphasis on the exchange of results, information and opinions, and to provide a forum, open to all scientists, for the discussion of problems that may affect scientific space research. These objectives are achieved through the organisation of Scientific Assemblies, publications and other means.

Finally, the 29th Canadian Symposium on Remote Sensing / 10th International Circumpolar Remote Sensing Symposium was held from 2 - 5 June 2008. This Joint Symposium is a partnership of the Canadian Remote Sensing Society and the International Circumpolar Remote Sensing Group. The Symposium celebrated the International Polar Year (IPY) and recognized and presented excellence in international remote sensing science in a wide variety of application fields.



Costa Rica

Introduction

In recent years, Costa Rica has seen an evolution in its science education system and capability to design, create, and develop different high end technologies. Among these technologies, space is arguably the most recent one thus Costa Rica is in a quite early stage compared to other nations, yet it is advancing in an outstanding pace. In this report, the following points are briefly presented: organisations and institutions related to space based in Costa Rica, a summary of the activities done through the last year and which are the future plans based upon current activities.

Organizations related to Space

CINESPA

The “Centro de Investigaciones Espaciales” (Space Research Center) of the Universidad de Costa Rica (UCR, University of Costa Rica) is a center which carries multiple astrophysics projects with two very clear foci: those aimed to understand different astrophysical phenomena and those to reach out to the society. Among the first kind, a space exploration project using a radio astronomical antenna combined with NASA’s X-Ray Polarimeter Explorer satellite can be mentioned. Outreach programs are ran with the combined effort of UCR’s Planetarium and intend to familiarize the general public with issues such as LEO and GEO satellites and their effects on societies daily life and how to photograph celestial bodies. For further information, www.cinespa.ucr.ac.cr



ACODEA

ACODEA, Costa Rican Astronomy Association (Asociacion Costarricense de Astronomia, in Spanish), is a NGO (Non-Governmental Organization) founded in 1987 dedicated to educate the general public how to use telescopes, their characteristics, how to find celestial bodies in the sky and also how to take pictures of such bodies. It also informs the general public of upcoming eclipses, comet showers, etc. On its website (www.acodea.org), people who are interested in any of these



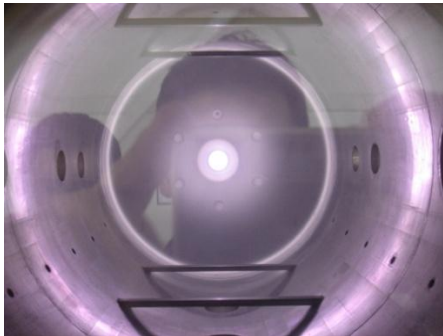
topics are able to find the necessary resources to explore the stars through their forums and other links readily available. ACODEA also hosts different events such as “Telescopios en la Acera” (Telescopes on the Sidewalk), as shown at the picture on the left. This event consists on teaching Costa Ricans on topics such as stars, our Moon, and other celestial bodies and how to look at them through the use of telescopes.

Ad Astra Rocket Company Costa Rica

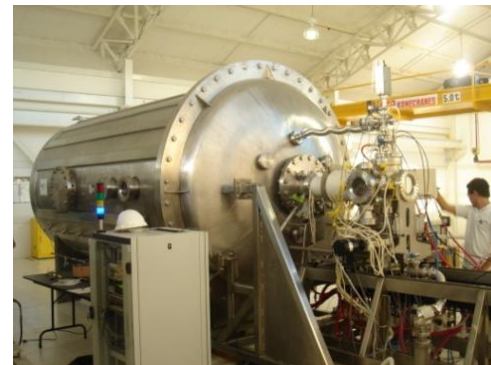
Ad Astra Rocket Company (AARC) is a rocket propulsion company dedicated to the development of advanced plasma rocket propulsion technology. The company is continuing with development of the Variable Specific Impulse Magnetoplasma Rocket (VASIMR) and its associated technologies at its Advanced Space Propulsion Laboratory (ASPL). The company is located within the confines of the NASA Johnson Space

Center, about 25 miles to the South of the city of Houston. AARC was incorporated on January 14th, 2005 and officially organised on the 15th of July of 2005.

The Ad Astra Rocket Company Costa Rica is a subsidiary of Ad Astra Rocket Company and it was formed as it parent company in 2005. The facility has been built approximately 10 km west of the city of Liberia, capital of the province of Guanacaste, on the campus of Earth University. On December 13, 2006, the Costa Rican team of AARC generated their first plasma pulse. The figures below shows a typical plasma pulse generated during experiments and the configuration of the test bed.



The main tasks of AARC Costa Rica are: building a flexible apparatus to explore optimization of a Plasma Source for VASIMRTM technology, measure the waste heat load from the source, and characterize its distribution, create engineering designs to remove the waste heat efficiently. The company also hosts several schools visits every month, ranging from a wide age spectrum: from primary to university. This not also educates but also motivates the future engineers and scientist of the country. For more details, visit www.adastrarocket.com



UCR Planetarium

The Universidad de Costa Rica's (UCR, in Spanish) Planetarium was created in 2004 and opened its doors to the public in middle 2005 and by then it was the only of its kind in Central America.

Its main activities include various shows using its dome; it also hosts short-term lessons and workshops on astronomy, Sun clocks, telescopes and conferences. It also works as an "astronomy outreach center" for students and the public in general; this helps the visitors understand better space topics they may not be familiar with. Further information can be found at www.planetario.ucr.ac.cr



NPoC Current Activities and Future Plans

During the 2008-2009 term, the main activities of Costa Rica's NPoC has been that of presenting the SGAC to different organisations in an effort to outreach to the people of the country. Contacts with people from Panama have been made with the same idea in mind: to expand the SGAC presence in the region, and in this case, in Panama through an NPoC.

During last year, a project in which a competition among different groups of university students was proposed. This competition consisted in launching a sub-orbital space mission taking advantage of the cooperation between SGAC and the private sector. Unfortunately, the sponsorship made possible by this collaboration was halted and this project could not be carried out as envisioned.

Guatemala

SGAC has had the opportunity to participate in many of the various space events in Guatemala in 2008. The Guatemalan Association of Astronomy (AGA) ("Asociación Guatemalteca de Astronomía"), for example, has had their agenda full during this past year. They have worked with the Museum of the Miraflores and with the National Institute of Seismology, Volcanology, Meteorology and Hydrology INSIVUMEH ("Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología"). Edgar Castro Bathen, president of the Guatemalan Association of Astronomy, has opened the path for many Guatemalans that are eager to learn about astronomy. As he said in an interview with the renowned newspaper Prensa Libre, "Everyone is invited to observe and learn." The following is a list of activities that SGAC had the opportunity to participate in:

- 1) January / 30 / 2008: Field observation of watching the night sky at the station of "Radiosonda" of the "INSIVUMEH" at Zone 13, city of Guatemala. There were 30 people who attended.
- 2) February / 20 / 2008: Field observation of watching the night sky of the total eclipse carried out on the terrace of the Museum of Miraflores ("Terraza del Museo Miraflores") at Zone 7, city of Guatemala. There were 15 telescopes that were available to the public. There were 200 people who attended.
- 3) February / 25 / 2008: Field observation of watching the night sky at the station of "Radiosonda" of the "INSIVUMEH" at Zone 13, city of Guatemala. There were 25 people who attended.
- 4) March / 26 / 2008: Field observation of watching the night sky at the station of "Radiosonda" of the "INSIVUMEH" at Zone 13, city of Guatemala. There were 23 people who attended.
- 5) April / 30 / 2008: Conference for members and guests by Alfredo Medina on "The Phoenix Mission" ("La Misión Fénix") at the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 20 people who attended.
- 6) May / 28 / 2008: Conference for members and guests by Oscar Velásquez on "Astrophotography" ("Astrofotografía"), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 26 people who attended.
- 7) June / 25 / 2008: Conference for members and guests by Vinicio Porres on "Successes and failures of the Russian astronaut" ("Exitos y fracasos de la astronáutica rusa"), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 30 people who attended.
- 8) July / 30 / 2008: Conference for members and guests by Jorge Solano on "The Time Equation" ("La ecuación del tiempo"), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 31 people who attended.
- 9) August / 27 / 2008: Conference for members and guests by Álvaro González on "The Southern Cross, a conspicuous Constellation" ("La Cruz del Sur, una conspicua constelación"), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 28 people who attended.
- 10) September / 24 / 2008: Conference for members and guests by Jorge Figueroa on "Binoculars for Astronomy" ("Binoculares para Astronomía "), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 30 people who attended.
- 11) October / 29 / 2008: Conference for members and guests by Juan Carlos Kong on "The God particle" ("La partícula de Dios "), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 23 people who attended.



12) November / 26 / 2008: Conference for members and guests by Iván Javora on "The Flour of the Universe" ("La Harina del Universo"), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 23 people who attended.

13) December / 10 / 2008: Conference for members and guests by Alvaro González on "The Star of Bethlehem" ("La Estrella de Belén"), the INSIVUMEH Hall Conference at Zone13, city of Guatemala. There were 28 people who attended.

During this year Edgar Castro Bathen had 24 astronomy articles published in the column of "ASTROFARO" in the newspaper SIGLO XXI. He also had 5 astronomy articles published in the newspaper Prensa Libre. He has been interviewed about meteor showers on the radio station TGW Radio Nacional. He has also been interviewed on radio about the "Bigger moon" ("Luna mas grande") on the radio station Emisoras Unidas.

Many thanks for the Guatemalan Association of Astronomy for their efforts to motivate the youth here in Guatemala.

Another organisation with which SGAC has ties is the American School of Guatemala, which has an outstanding educational program. Part of the eighth grade middle school activities is learning about GPS and about Google earth (satellite images) which is mostly part of the earth science curriculum. The fifth grade also has a map skills unit in the Social Studies ("Estudios Sociales"). This is big leap in the education in Guatemala. Many thanks for this information given by Maria Hirst who is the curriculum coordinator of the American School of Guatemala.

The Museum of Science and Technology of Guatemala ("Museo de Ciencia y Tecnología de Guatemala") has done many activities during the year 2008 to promote the education of space.

1) February / 13 / 2008: Conference for very small children (between 4 and 7 years old) on the "Eclipses and our Solar System"

2) February / 20 / 2008: Interactive conference and observation of the Total Eclipse of the Moon in cooperation with the Association of Astronomy and Astrophysics ("Asociacion de Astronomia y Astrofisica").

3) February / 27 / 2008: Conference for the secondary education kids "Conquering the Universe" which included a bit of everything: Satellites, SSI, and Saturn V, the Apollo Program, Nebulae and galaxies.

4) June / 09 / 2008: Conference for the secondary education kids "Conquering the Universe" which included a bit of everything: Satellites, SSI, Saturn V, the Apollo Program, Nebulae and galaxies.

5) In the years before the museum has also done several Science Vacation Programs ("Escapada Científica en Vacaciones").

This is great support to the education here in Guatemala thanks to the efforts of Alcira García-Vassaux, the Executive Director.

SGAC also works with the Children's Museum of Guatemala supports the education of children through interactive exhibits in which they handle issues of science, technology, health and living. Within the scientific theme it is very important to know about the phenomena and characteristics of the stars and therefore there exists two exhibitions that address these issues.

Finally, SGAC has connections with the University Rafael Landivar of Guatemala has the fortune of having its own observatory on its TEC building on campus. The Astronomy Club at the university is always putting in hours into looking at the night sky. It is now a part of the 100 hours of Astronomy, a pilot project of the International Year of Astronomy of 2009. There will be daytime and nighttime astronomical observations, workshops measuring light pollution and manufacturing of astronomical instruments.

The sad news that occurred during the year 2008 was the cancelation of the 6th Space Conference and Space Generation Congress for 2009 that everyone was hoping would be carried out in Guatemala. When asked, Aldo Bonilla (who represented the Superintendent of Telecommunications of Guatemala at the time), answered with following quote:

“There are offers of cooperation that have not been fully carried out due to the change of government that led to the departure of the leadership that was implementing actions aimed at coordinating requirements versus just offerings....”

We hope that perhaps in the near future we will be able to bring SGC to Guatemala.

Jamaica

The year 2008 represented the initiation of SGAC activities in Jamaica, after the appointment of the first Jamaican NPoC at the end of 2007. Things started off with a letter to newspapers in Jamaica to highlight events in Space which may affect Jamaican people, namely the 2008 Spy Satellite shutdown by the United States. The NPoC worked in close collaboration with the Astronomical Association of Jamaica (AAJ) - the most prominent group conducting Space related public outreach activities in Jamaica.

Jamaica hosted its first Yuri's Night courtesy of the AAJ. It was a record year for the Yuri's Night celebrations with close to 200 parties in some 50 countries - Jamaica is proud to have been a part of that record breaking endeavour. It is hoped that we will make it a bigger and better event for 2009 and years to come.

The 2009 International Year of Astronomy (IYA2009) represents a grand opportunity to showcase Space and science activities to the layman and Jamaica grasped an early opportunity to do this, supporting our Puerto Rican neighbours in their effort to merge astronomy and art in showcasing the life of Galileo and the use of the telescope. This successful endeavour took the form of a summer workshop at the Arecibo Observatory for undergraduate students where Jamaicans - young and young at heart - contributed their poems on topics related to astronomy.

A special mention must be made of the recently concluded SGAC IYA2009 Essay Competition which saw a young entrant from Jamaica submitting a winning entry. Mr Jason Ewer was, unfortunately, below the minimum age limit for prize winners and was offered a delegate position at SGC 2009 as an alternative award.

In their most creative endeavor yet, the AAJ set out to redefine the meaning of Space Tourism when they treated guest tourists at the Ritz Carlton Hotel in Rose Hall to nights of sand, sea, and dark skies filled with enigmatic planets, stars and galaxies. The AAJ used the opportunity to inform the 200 guests of SGAC activities such as Yuri's Night, and also the IYA2009. The AAJ closed the year in fine style with another Space Tourism activity on New Year's Eve in Jamaica, due to the success of the commensurate event.



We hope to make 2009 a bigger and better year for SGAC.

Mexico

A real and long-lasting change can only come from the hearts and minds of the individuals who believe in it. The year of 2008 was a good year for Mexico in the Space sector in that sense. In 2007, the opinion of the public in general of having a space agency was mostly dubious and mostly rejected, stating that as a developing country the country had more important issues to work on yet.

The brilliant minds of the Mexican Space Agency project – where everything has been achieved by volunteer hands – have been doing a tremendous effort to change that perception with great results. The catalyst? Jose Hernandez – an American astronaut son of Mexican immigrants who spent his childhood picking up fruits and vegetables at the harvesting season in California's fields.

Coming from a low-income Mexican immigrant's family and becoming a NASA astronaut is something that even for Americans is hard to achieve. Jose Hernandez is definitely a role model for every Mexican citizen; his background and charisma inspire even the coldest person. He is aware of the reality in Mexico. Trying to create a positive change, he gives talks in front of school children and their parents to motivate them to invest in education and to pursue majors in the engineering and science fields at universities.

Several appearances at the main national TV channels and speaking with a honest and open heart (assisted by his successful career at NASA) has been enough to change the mindset of the public in general.



Jose's leadership influenced the Mexican Senate to pass the initiative law that creates the Mexican Space Agency (AEXA) on November 4th, 2008. To this effort Space Generation via the National Point of Contact, Israel Ojeda and with the support of the executive office with Agnieszka Lukaszczyk contributed in sending a letter to Dr. Luis Tellez secretary of the Communications and Transports Secretariat seeking to support the creation of the agency and where it was included the following benefits for society:

- Impulse Mexican Telecommunications companies and services with permanent and solid presence at the International Telecommunications Union and other international organisms
- Surveillance of maritime commerce and fishing industry inside Mexico's waters
- Enable the use of Satellite Space Applications for natural disaster monitoring: Hurricanes, floods, volcanoes, drought, and earthquakes.
- Become a partner and a player in the new incoming era of Space Commercialization
- Access to innovation and economic growth
- Academic and scientific research to develop technologies and aerospace applications
- Environmental Monitoring of such rich and unique national biodiversity



- Access to Satellite Civil and Commercial applications such as: Communications, Navigation, Remote Sensing and Geographical Information Systems (GIS)
- Historical site and Archeological preservation using satellite remote sensing applications
- Strengthen the National Space Policy and Law by:
 - Regulating the technology transfer
 - Re-evaluate the five Space treaties signed and ratified by Mexico (including the 1972, Moon treaty) which would make impossible for Mexico to join the Space Fairing Nations and its companies missing great opportunities as of today for the new Era of Moon exploration and commercialization
- Position Mexico's international outlook: from being an underdeveloped country into a source of knowledge and technology

Also in 2008, Mr. Sergio Camacho former Chairman of UN COPUOS was appointed Secretary General at the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean. His experience in the field has been seen as a positive event not only for the country but for the region.

Hopefully, this year of 2009 we can celebrate the creation of the agency which would allow companies, universities and other organisations to sign cooperation agreements with other countries and to foster the national (inexistent) space industry, creating university programs to prepare the young generations in that field. We look forward to foster the space education as an initial phase in Mexico and hopefully soon we can start contributing in the international arena with the space community.

Relevant Mexican Activities in Space in 2008



On August 28th and 29th the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean (CRECTEALC by its acronym in Spanish) was celebrated in Mexico City. Part of its mandate is to inform the attendees of its activities across the Latin American region. It was a joint effort by the Foreign Affairs Secretariat, the National Institute of Astrophysics, Optic and Electronics.

The Seminary gathered leaders from governments of Latin America and the Caribbean, Space Agencies, Directors of the other Regional Centers from Africa, Latin America and the Caribbean, Asia and the Pacific, Experts from Latin America and the Caribbean, Directors from National and International programs in both Academic and Public sectors, and the Directors of companies with Space Activities.



On November 6th, 2008 the Senate (Upper Chamber) passed with unanimity with 86 votes the initiative of law that set one step closer to create the Mexican Space Agency. It still needs to be reviewed, analyzed and discussed by the Lower Chamber and in case to be approved it will be published the Executive representative in case there are not more changes to the initiative sent to the Senate.

It is still unclear when is going to continue the initiative. But based on the experience of the process it will be decided until next year in 2009.



As a special note of something that happened all over the year- As a kind gesture, Space Agencies and research institutions from all over the world –including the Space Generation Advisory Council– sent letters to the Mexican Senate to express their support to create the Mexican Space Agency. Letters also from national academic institutions, research centers, industry, entrepreneurs and state governors were sent also in support to the creation of the National Space Agency AEXA.



South America

The Latin American Group of SGAC has continued to conduct diverse activities towards its goals of bringing Latin American young closer to space and informing the youth about the benefits of space exploration and what space can offer to our society.

During 2008, the NPoCs as well as all the members of the SGAC Latin America region have organised, contributed with, collaborated and participated in a large number of space related activities. One of the most important things that we have continued from last year was the organisation of our Latin American Virtual meetings, which were held throughout 2008. It was amazing to meet and reach each other just staying at home we could had interesting discussions with the NPoCs and others members of the group. One thing that unifies us is our language – Spanish!

During the past year there were important congresses, workshops and events organised through our region, like the Workshop on the Applications of Global Navigation Satellite Systems (GNSS), the Astronomy and Astrophysics Colombian Congress (COCOA) and the Second Sciences and Technologies Aerospace International Congress (CICTA2008) held in Colombia in August and October respectively. In Peru, as it has been done since 1996, we organised in January and July the Conference on Science and Technology together with the Plenary meeting of the Peruvian Network of Science and Technology (InterCyT). Also, events like the ASME USB Congress and the water rocket contest were organised at the Simon Bolivar University in Venezuela.

The Space Generation Congress 2008 in Glasgow, Scotland, was a great opportunity to meet university students and young professional coming from different countries around the world. But it was the great opportunity for five members of our group (from Argentina, Colombia, Perú and Venezuela) to meet each other in person. Many of us knew each other through Internet and via e-mail, but without a doubt, there is nothing as to chat and to exchange ideas meeting face-to-face.

After our participation in SGC and IAC Laura García (NPoC of Argentina), Ana Pérez (NPoC of Venezuela), and Martín Canales Romero (RC) worked on the podcast "Los jóvenes y una inolvidable vivencia en Glasgow", which was broadcasted on the web, the 16th of October 2008, by the Mexican Radio program "RadioKosmos". The podcast was prepared in coordination with Laura and the Argentinean radio "Desde el Sur: Explorando el Cosmos."

This year, we all worked together preparing and sending letters to schools, universities and other institutions inviting teachers, educators and public interested in astronomy and space to join us in the Yuri's Night celebration, as well to participate and celebrate the WSW 2008. All the events held and organised in our region as well as other



international news about space exploration were published in our regional blog “SPATIUM”. Please visit us at: <http://real-spatium.blogspot.com/>

Our region has now developed the capability to work as a team with all the NPOCs in Latin America and other members of our group, and also with SGAC members from all over the world. In 2009 the SGAC Latin American Group will be continuing to promote space awareness among young people interested in space education and public outreach.

Last but not least, new Points of Contact of SGAC were elected in Mexico and Brazil. For 2009 one of our challenges will be recruiting new NPOCs in the countries where still there is not an NPOC.

In summary, 2008 was a big year concerning our development as group and the efforts in bringing youth closer to space – keep reaching for the stars!

Argentina

From Argentina, we had the opportunity to collaborate in different amazing activities during 2008. One of the most important things was to be able to work as a team with other NPOCs of Latin America, and also with SGAC members from all over the world. For example, in Latin America we kept our regional blog “on line”, beyond some technical obstacles. That blog was created in 2007, and it is very useful to communicate good news about space exploration. We have planned to change its design, something we will surely do during 2009.

Every two-four months, we also had a virtual meeting through Skype. It was very fun to talk to other NPOCs, because almost all we talk in the same language (Spanish) we have different accents. But the good thing is that we could communicate each other and sharing enthusiasm and ideas to develop in our region.

A project which was born in those meeting was to write up a letter to tell authorities of education institutions, like primary schools, about the World Space Week. It was a challenge because it needed coordination to work as a team with people living in Venezuela, Germany, Argentina and other countries. The members sent a letter explaining the world celebration, signed by one of our regional coordinators and each NPOC. In Argentina, it was sent mainly to schools and astronomy-related centers.

Without doubts, the highlight in 2008 was the participation of three SGAC members of Latin America at the Space Generation Congress (SGC), held in October in Glasgow Scotland.

Our NPOC, Laura García, received the “Peter Diamandis Award” from SGAC, which covered a round trip to attend SGC and also the first two days of the International Astronautical Congress (IAC). Both congresses were absolutely superb!

It was really excellent to meet face to face with Ana Pérez (NPOC of Venezuela) and Martín Canales (one of our regional coordinators in Latin America), because we could talk about million new ideas. Also, it was terrific to meet SGC’s staff.

At SGC, Laura García had the opportunity to meet more than 50 young and brilliant people from the five continents and with different backgrounds, who share the same



passion on space exploration. Laura García worked on one of the teams discussed a paper developed during the first half of 2008, and then we created a script and a video telling why is so important space exploration for humanity. That video is now on YouTube. Laura also collaborated with the SGC staff covering the talks of the guest speakers (the speaker summary stories).

As Laura is a science journalist, IAC was also a window of opportunities to meet information sources from the most important space agencies of the world. The NPOC covered a story for a newspaper of Argentina, and enjoyed as much as possible those two days at the large gathering.

When Laura came back to Argentina, she was invited to participate telling our experiences of Glasgow in a podcast about astronomy and space exploration that is broadcasted in a web radio. Laura developed a script, contacted Ana Pérez and Martín Canales so they could send a brief description of their experiences and after some editing it was ready. The product, which we are very proud of, is now online: <http://real-spatium.blogspot.com/2008/10/podcast-sobre-dos-congresos-espaciales.html>.

We also gave a talk in a school of Buenos Aires city, to children of 11 years old. The talk was about SGC and IAC, and some history of space exploration (the first artificial satellite, the first human in space, the 10th anniversary of the International Space Station, among other details).

In 2008, we tried to collaborate periodically with the global newsletter of SGAC. So every NPoC sent news about each country, and in Argentina we wrote up the regional update text.

In 2009, SGAC members in Argentina are planning to collaborate in the celebration of the International Year of Astronomy, in different cities of our country. It would be also great to be able to develop a regional project that was proposed by the Brazil NPoC. Other challenge will be to think in good strategies to find more young people interested to become members of SGAC in Argentina and other countries of the region.

Bolivia

In this in 2008, SGAC Bolivia participated in various outreach activities through working with primarily two groups: The "Kalpana Chawla" Astronautical Group and the Planetario Max Scheria. Below is a summary of their respective activities.

The Bolivian Astronautical Group, Kalpana Chawla

Centered in La Paz, this group has the vision for research and social interaction. The research is focused on solid rocket motor propulsion development and they are very active in giving lectures and presentations on their work. They have presented at the Physics Open where they talked to young students about rocket propulsion. They not only brought brochures and multimedia for the students but they made the lecture interactive by taking it outside to show off some water rockets. The group also participated in The National Physics Conference (SOBOFI). This event brings together many physics students and teachers to interact. On this occasion the group was invited to give a lecture on the progress in rocket propulsion research, which was warmly accepted. Finally, the group participated in the Aero Expo 2008 that was organised by the Bolivian Air Force. At this event, both the Kalpana Chawla group and the Max



Scheria Planetarium presented model rockets to demonstrate solid rocket propulsion. During lectures, water rockets were used.



Image of a rocket launch in the "Aero Expo 2008"

MaxScheria Planetarium

This year, the planetarium continued its astronomy outreach to students. In addition to presentations on topics of astronomy which they held in schools, parks and plazas in La Paz, they also presented telescopes to the leading colleges in the city. At the "Physics to Open Doors" event SGAC was able to make a presentation with the Planetarium. The event tried to educate young people about space and to encourage them to study space sciences. At the event there was a mobile personal planetarium designed by Max Scheria, which gave presentations on the Sun. As mentioned above, the Max Scheria Planetarium was also at the "Aero Expo 2008." Similar to the "Physics to Open Doors" event, presentations on space sciences and the Sun were given. The planetarium also brought the mobile planetarium to explain the wonders of the universe.

These two groups are closely linked to astronomy and space science within Bolivia, but could always use the help of SGAC when it comes to outreach. Thankfully, at the moment, we have the help of the people named below to grow these relationships with them.

Group Astronautical Boliviano "Kalpana Chawla": Apaza Roger Vasquez, Oscar Lazcano Patroni, Zabalaga Decker, Alejandro Coronado, Marcelo Vargas, Peter Zabala, and Marcelo Peñaloza

Max Scheria Planetarium: Victor Vallejos, Rubber Muñoz, and others

Brazil

The Space Generation Advisory Council has had a great impact on Brazil. This was evident when one of our members very proudly mentioned, "I never had that much care and welcoming attention. I have replies of my emails in same day and I feel they trust I can make the difference". The Brazilian chapter of SGAC would like to thank the co-chairpersons, Executive Office, Regional and Project leaders for taking to practice many fundamental principles surrounding Space Exploration – such as international cooperation, taking in account the needs of developing and least developed countries, capacity building, and strengthening regional ties.

The Use and Exploration of Outer Space has become each day more crucial and integrated into daily life. While developed countries have already benefited from these space technologies, developing countries are starting to catch on. The role of SGAC in speeding the benefits of space in the lives of citizens of developing countries is crucial. SGAC opens a door to the youth to interact, listen and talk, learn and teach, be prepared for and be part of the outer space fluent future.

We need a multi-cultural and multi-regional decision process to take democracy to the most feasible extent level, and again Space Generation Advisory Council brings this together. During year 2008 this was very present, and we all were paving a brighter path for future achievements. SGAC connected small Caribbean countries with big Asian space-faring nations, industrialized European states with agricultural-based countries in Africa. The same happened in Brazil. During 2008, SGAC in Brazil had the honor to work with NPOCs and members from different regions, getting closer to their national features and sharing little bit more of our developments and strengths. For example, we worked with NPOCs and members from Rwanda, Nigeria, Ukraine, France and Latin America. We interpret these first contacts as a starting point for further common understandings and projects.

In the same strategic line, 2008 was our year to greatly increase access of the Brazilian youth to SGAC projects and activities. We grew from three to twenty-six members – knowing that once having access to the very valuable membership and mailing list subscription, as members receive information they patiently will get motivated to interact more. There are twenty-six without counting our Brazilian Astronomy and Astrophysics icon Dr. Duília de Mello who is now living in the United States. Working at NASA's Goddard Space Flight Center and being the most reliable professional with time in the national media, magazines and television, she is a great example to the Brazilian youth. With literally millions of fans, Dr. Duília de Melo is always present, guiding youth to a career in Astronomy and Astronautics and answering their many doubts. Dr. Marcelo de Oliveira is another SGAC member that we look up to in Brazil. He is one of the most prestigious cosmologists in Brazil and carries incomparable astronomy and space education history. Our SGAC Brazil members are engineers, lawyers, biologists, experimental rocket professionals, medalists in the Brazilian Olympics of Astronomy and Astronautics, medicine students, astronomers and more, demonstrating that they represent quantity, quality, and diversity.

During 2008, we also got closer to the International Year of Astronomy 2009 Brazilian Organizing Committee, allowing SGAC to be a listed regional contact for IYA2009 activities in Brazil. Many Brazilian SGAC members proudly participated in the IYA 2009 Essay Competition. They were very motivated and did an excellent job. The IYA 2009 Brazilian Organizing Committee also helped us to promote the SGAC by listing it on the IYA 2009 Official website. One of the Brazilian NPOC's is also a YGNSS working group collaborator. He has promoted the group in many communication media, gathering the participation of many young people from Brazil. SGAC in Brazil has mobilized many authorities in the environmental and climate change sectors, explaining to them the benefits of space technologies in social management, urban planning, monitoring of agriculture good practices, monitoring if all mineral quarries identified by satellite images have operating licenses and run on the minimum conditions stipulated by law, flood relief, sea level rise monitoring among others examples. We strongly recommended authorities in the Brazilian state of Bahia to kindly ask UN OOSA or Argentina Space Agency to activate the International Charter on Space and Major Disasters during the



intense fires that damaged more than seventy five thousand hectares (more than fifty percent) of the Brazilian National Park of Chapada Diamantina on beginning November 2008. Unfortunately even after contacting many authorities, calling and sending emails they did not ask for the International Charter activation. Few weeks later Brazil activated for first time the International Charter on Space and Major Disasters as a relief measure on the Santa Catarina floods in south of Brazil.

SGAC in Brazil is also participating as the second largest contributor for SETI@Nordeste (SETI Project at Northeast Brazil). The northeast region of Brazil is historically known as the one with poorest educational and life quality indicators and any initiative to promote capacity building and opportunity in this region is very welcome.

During year 2008 we also asked for funding from the Brazilian National Council for Scientific and Technological Development to organise the Space Generation Latin American Congress. We had very proactive support from SGAC in Vienna, Austria and from Cretealc – but at the time it was not admitted as they had prior focus to IYA2009 events centered in Astronomy education.

We also worked to promote the Space Renaissance Initiative supported by Adriano Autino, Charles Radley and Apollo 11's Dr. Buzz Aldrin among our space policy makers and youth. Our Brazilian SGAC law academic members also worked to support the Movimento Pro Asociación Colombiana de Derecho Aereo y Espacial, as per recommendation from Marco Pirateque, NPoC for Colombia. We have also submitted some content to the SGAC Newsletter in the last trimester. Further, we have formulated a printed flyer in Portuguese language to distribute to universities, schools, astronomy observatories and planetariums. Finally, we also worked in the promotion of outer space related messages inside through rock group concerts. Unfortunately we only were able to promote at two rock shows but it did serve as an important pilot project for next year.

Colombia

For developing countries such as Colombia, one of the action's lines for the acquisition of knowledge and use of science and technology available worldwide must be based on training and development of human talent to large scale, in addition to providing access to information for the entire population through the Information and Communication Technologies (ICTs).

Within those lines, there is the dissemination of space science, which will become in the spearhead for further in the transference and dissemination of the knowledge in two different ways institutional and state from regional or national entities involving two major areas such as Astronomy and Astronautics.

In Colombia, space activities have been consolidated in recent years by various public and private organisations, increasing participation in various sectors of society, fostering the integration of amateurs and professionals from various fields with the aim of participating in multiple events national and international related with the sciences space.

Apart from its NPoCs, who support, participate and organise various events, the SGAC Colombian group encourages the outreach and transfer of knowledge and supports



actively the integration of Latin America. The following are highlighted activities in this year focused on the participation of children and young people, and events of great impact in society which can generate greater influence over time.

- February 8-10 XI National Festival of Astronomy in Villa de Leyva: This festival is organised by the Astronomers Autodidact Colombian Association ASASAC which is regarded as the festival of amateur astronomers largest in Latin America because arrive it to more than 6,000 visitors each year. As part of their agenda are a number of activities including conferences, workshops for children, observations of the Sun and in the night to the large number of celestial bodies that gives us the sky from a town hot and dry environment, in addition to possibility of entering several portable planetariums not cease to be a great attraction for young and old. One of the biggest attractions was the launching of water rockets. These were the work of the Colombian Commission Rocketry and Astronautical C3 which every year exceed the expectations of everyone assistants with each of the launching, some with apogees of above the 100 meters. This generates all great motivation to children who hopefully will want to become the next generation of scientists and astronauts.
- April 12 – The Yuri's Night : For the second time in the country, took place the celebration of Yuri's Night organised by the Colombian Commission Rocketry and Astronautical C3, and which included the participation of various organisations and persons of concern in the field of space, such as the director of space research program, which succeeded in putting into orbit successfully the CubeSat called LIBERTAD1, as well as presidents and members of student organisations dedicated to research and outreach of space in Colombia. Organized an event in the area most exclusive of Bogota, in which it is estimated that participated between 40 and 50 assistants between organisers and visitors, ensuring greater participation and acceptance by the national community.
- May 10th Astronomy International's Day: During the celebration of International Amateur astronomers in several national associations agreed to devote one day a year to astronomy showing the sky to people. During this date were held workshops, astronomical observations, conferences related to the sky, orientation, mythology, stars, planets and constellations, history of astronomy, the Sun, Moon, asteroids, meteors and comets, celestial coordinates, equipment optical, telescopes and binoculars, observation techniques.
- June 23-27 United Nations/Colombia/United States of America Workshop on the Applications of Global Navigation Satellite Systems GNSS: This workshop conducted by the United Nations, Colombia and United States took place in Medellin with the participation of multiple personalities and national and international institutions, in addition the participation of delegates from SGAC. Among the agenda items were a discussion on the use of technology for Global -Navigation Satellite System (GNSS) in precision agriculture, global change, landscape epidemiology, e-learning. This is mentioned national and regional experiences and case studies in GNSS applications. The country is also exploring the possibility of creating national and regional mechanisms for coordinating the management of GNSS technologies and reviewing the status of existing plans and projects. Also discussed were priority areas for future launch of pilot projects.



- June 23 -29 Campus Party Colombia 2008: Campus Party is recognized as the largest meeting of electronic entertainment network in the world. This is an annual event held since 1997 in several countries in Europe, and made for the first time in Colombia in which met for seven days with hundreds of participants your computers from all Colombia and other neighboring nations, in order to share concerns, share experiences and make all kinds of activities related to computers, communications and new technologies. In this event participated more than 2400 persons, who lived there throughout the week, in addition to the 5000 daily visitors. There were round the clock activities which allowed the visitors to share their experiences from a wide range of technical professions such as robotics, software development, web applications, games, multimedia applications, simulation, free software, as well as astronautics and astronomy.
- July: The new Colombian National Point of Contact, Nicole Jordan, made several presentations linked to a number of international space and academic projects.
- September 25-27 SGC 2008: Nicole Jordan participated in SGC for second consecutive year, demonstrating Colombian commitment to the diffusion of space sciences.
- October 4 – 10 World Space Week: The Colombian Commission on Rocketry and Astronautics organised throughout the month of October a series of conferences which were related to issues of space exploration in commemoration of World Space Week. There was strong participation from all ages.
- November 23 – First Rocketry Olympic Games: Under the initiative of the Research in Astronautics and Space Propulsion Group GITUP, the Iterative Center MALOKA, and the Colombian Commission on Rocketry and Astronautics, the first , the first Rocketry Olympic Games were held. The event saw schools of all levels engaging in launching of water rockets.
- Other activities: Among other activities in Colombia during 2008 was the election of Nicole Jordan as a National Point of Contact. The two NPOCs then held a meeting to discuss how to best implement various activities in the country. The Colombian delegation participated actively in the implementation of the Latin American Space Virtual Meeting held with other NPoC in the region and with those seeking the integration of activities at the regional level. SGAC Colombia has also contributed often to SGACs publications including the monthly newsletter and the SGAC Latin America blog.
- Forward Plans: Among the Colombian NPOCs' future plans is building and strengthening the Colombian Astronautical Society (SAC) whose objective is to diffuse and promote space sciences to the Colombian people. We also hope to participate in the activities related to the International Year of Astronomy 2009. We also would like to consolidate the Latin American Space Association (ALE) through its various leaders and the various associations involved in aerospace issues that are in the region. Finally, we are looking forward to participating in the Space Generation Congress and the Astronautical International Congress in Daejeon, South Korea.



Peru

Outreach and Education are two fundamental pillars in the activities SGAC is doing in Peru. They are the most valued in SGACs projects in Peru.

Youth involvement in space activities in Peru has been guided and coordinated by the NPOC and conducted through the Seminario Permanente de Astronomía y Ciencias Espaciales (SPACE) which is the major organisation of astronomers and the first academic and research center in Peru, located at the Faculty of Physics of the Universidad Nacional Mayor de San Marcos in Lima. The purpose of SPACE is to promote the development of space activities in Peru seeking the collaboration between schools and universities from different regions in the country, and by reaching the general public through the organisation of educational activities.

In January and July of 2008, we organised the Conference on Science and Technology and the Meeting of the International Network of Science and Technology for Peru (InterCyT - <http://www.cienciaperu.org/>). Both events were held in Lima. The International Scientific Seminar (<http://www.eciperu.org.pe/>) is a more recent event with the goal to invite Peruvian scientists and engineers resident abroad or friends of Peru to expose the advances of the science in their field of work and investigation.

The third quarter of 2008 was a very important one for the Peruvian NPOC and other Peruvian engineers who are working on the preparation and development of National Satellite program. Two important events were organised in order to start the implementation of the National Center for Operations of Satellite Images (CNOIS). The first one took place on November 28th with the organisation of the National Commission for Aerospace Development (CONIDA) and the Department of Defense. On that day was held the "First Seminar on Satellite Remote Sensing and on National Capacity for Communications in the Sector Defense". This event marks an important milestone and fortifies our purposes, helping our government to be informed about the state of the industry in themes of aerospace technology and remote sensing.

On December 11, the Workshop "Toward a Integral Vision for the Usage of the Satellite Technology" was carried out with the support of the National Cabinet of Ministers (PCM) and organised by the National Office for Electronics and Informatics (ONGEI), CONIDA and the Department of Defense.

Both events included the participation of national exhibitors and also the presence of representatives of important aerospace companies specialized in remote sensing from France, Canada, England, Spain, South Africa and Germany. Moreover representatives of the Catholic University (PUCP) and of the National University of Engineers (UNI) were presented. There were introduced ideas and proposals for the development of a satellite program. The event was oriented to all Peruvian public and private institutions and had as a central objective to inform these institutions about the available technologies for the implementation of the National Center for Operations of Satellite Images (CNOIS) and to provide objective evidence that we have the capability to create and launch a satellite made in Peru.

Space is still an extremely complicated and high-risk activity, but it is certain that Peru can master it. Countries similar to Peru, such as South Africa, Iran, Nigeria and Chile are doing it, so Peru should be able to as well.



Venezuela

There were many activities in Venezuela in 2008, in which SGAC actively participated.

Lunar eclipse viewing party from Simon Bolivar University

On February 20th more than a hundred and fifty people fixed their eyes into the night sky and watched the lunar eclipse from Simón Bolívar University, Venezuela. This activity was organised by the University Group of the Astronomical Research – GUIA -, group affiliated to the Student Development Department, and it started with a talk about eclipses and after this, all of the participants and invitees, together with the Meade LX-200 telescope and binoculars, went to the campus gardens and watched the beautiful astronomic event. At the beginning, the sky was a little cloudy but then this wasn't a problem and the eclipse was enjoyed by all the people who were there that night.

NASA Biological Sciences Presentation at the Simon Bolivar University

On March 27th Dr. Russell Kerschmann who is the Chief of Space Biosciences at NASA Ames Research Center, California, held a presentation at the Simon Bolivar University, Venezuela. Dr. Russell began the presentation talking about the Division and how it is one of the major facilities that NASA has for biological studies. It is focused on space radiation effects, planetary dust toxicology, microgravity effects, life support systems and space suit health. Understanding the impact of all these situations and phenomenon, innovating new technologies and performing biosciences research are preparing for human beings to survive in space and extend their presence beyond earth.

Yuri's Night Venezuela

On April 10th, NPOC Ana Pérez together with the University Group for Astronomical Research – GUIA USB – organised an activity to celebrate the Yuri's Night Party in Caracas, Venezuela. The activity consisted in a short presentation about Gagarin and his life as the first astronaut. And then, all of the members of the group shared a little time together. It was a simple celebration, but the members of GUIA could see how important Yuri Gagarin was, as the first human in space and the first to orbit the Earth.

Space Education

Ana A. Perez was invited to share some time with 4 and 5 year old kids at the kindergarten of the "María Inmaculada" School in Turmero, Aragua. She talked about the Solar System and all of the planets, while she was showing pictures of all of them.

Water Rocket Contest

On June 19th, a water rocket contest was organised by the recently formed Group of Space Sciences at the Simon Bolivar University – USB–, Venezuela. This event was totally a success because a lot of people participated; USB and school students, visitors and even professors were there launching their really creative water rockets which were made of bottles and other materials. The one who reached the highest was the rocket designed by students of the school called "Los Arcos". In the second place was the rocket created by the members of the Experimental Aeronautics Association – AAE USB – and, in the third place was the one made by María Dosantos.

United Nations/Colombia/United States of America Workshop on the Applications of Global Navigation Satellite Systems, Medellín

During the last week of June, the UN Workshop on the Applications and Uses of GNSS was held in Medellín, Colombia. SGAC was represented by Guatemala's NPOC, Jeffrey



Rivera, and Paul Acquatella Regional Coordinator for South America, thanks to the support from the UN OOSA and the Colombian Air Force. The workshop counted with several representatives ranging from space agencies, governments institutions, industry and students from all over the continent. During the Workshop, Acquatella focused on the SGAC activities and projects being made in the Latin-American community towards the space development and education and our current perspective with the use and applications with GNSS....”

Space Generation Congress & International Astronautical Congress 2008

Venezuela had chance again to be present in these two amazing space Congresses and represent not only the country, but South America as well. Ana Alexandra Pérez, as the NPoC – Venezuela, received sponsorship from the Lunar Explorers Society, the International Lunar Observatory Association and a huge support from the SGAC Executive. It was a good opportunity for Pérez to make special connections with space enthusiasts, experts and students from all around the world.

World Space Week Celebration 2008

On October 30th the Astronomical Research Group of the Simon Bolivar University coordinated an activity to celebrate World Space Week 2008. The event began with a short presentation about this celebration and how space technologies have made an incredible impact in our day lives and how they have been increasing for the last years. After that, the members - space enthusiasts, used their Meade LX-200 telescope and started the astronomical observation as commonly they do.

Second Annual Water Rocket Contest

On November 13th, the second annual water rocket competition was held in the University Simon Bolivar (Caracas, Venezuela). This activity was coordinated by the USB Space Sciences Group, Professor Sabater, Eduardo Greaves and Paul Acquatella, current SGAC Regional Coordinator for South America. Students from “Los Arcos” School and the Simon Bolivar University participated with really amazing and creative rockets but the winner of this competition was Alejandro Calvanese whose rocket reached 36 meters, the highest one during the event.

SGAC Venezuela would like to send a special thanks to the entire SGAC Executive Council who is always there supporting us to make possible all these amazing space activities and celebrations.



Space Generation Congress 2008, Glasgow, Scotland

Congress Overview

The Space Generation Congress (SGC) is the annual meeting of Space Generation Advisory Council. SGC is organised by a group of volunteers from around the world and supported by several sponsors. The congress would not have been possible without the generous support of the Lockheed Martin Corporation and the NASA Astrobiology Institute and the rest of the sponsors. The 7th annual Space Generation Congress was held in Glasgow, Scotland from September 25th through 27th and held activities during the 59th International Astronautical Congress the following week in Glasgow. This year, 45 delegates came from all seven continents to participate in nine projects of deep importance to the future of human activity in space. Some highlights include:

- Eight of the nine groups gave presentations during the technical sessions IAC
- Plans to publish a book
- Expand the scope and coverage of Yuri's Night and World Space Week

Delegates were selected from a pool of 174 applicants, of them, 122 were offered seats at SGC. This year saw a record percentage of women attend at 46%. Over the years, there has been a steady increase in the number of women attending SGC. The accepted participants represented 43 countries and delegates from 18 countries attended the congress including representation from four different countries from South America, a new record for most countries from that region.

The applicants and selected delegates worked virtually on the SGC Projects beginning in early March through the congress. This year saw a very high level of activity from the selected delegates who were not able to attend the congress. Several of the groups used Web 2.0 tools including live discussions, webcams, and wiki style websites to communicate live and work with the members of their group who were not able to attend the Space Generation Congress. Space explorers (whether astronauts, cosmonauts or space agencies) are the true ambassadors of Earth. In this role, they can inspire the world to be more internationally aware and work together without regards of nationality, religion, or race. The SGC delegates propose that current space explorers take an active leadership role by symbolizing their role as ambassadors of Earth in space. To accomplish this, a display of a symbol that anyone, anywhere in the world can relate to is warranted, sending a true message to the world that space exploration is done for the benefit of everyone, of all nations. The SGC delegates propose that the appropriate symbol is the "Blue Marble": the first complete picture taken of Earth from space by humans in 1972. For this reason, at SGC 2008, a Blue Marble flag was displayed.

Projects

SGAC acts as an incubator for several space development projects. Members of the Space Generation are the source of the project ideas as well as the leaders of the selected projects. Most projects promote space exploration, education about the benefits of space to the global community, and to improve access to space for all. Current and past projects are listed on the SGAC website. Each year, the most active projects and its members are invited to come to the Space Generation Congress for three days of focused progress in person with experts from around the world. Project ideas come from members of the Space Generation. This year SGC delegates worked



on nine projects which included: Yuri's Night, 50 Years Visions, Youth for Global Navigation Satellite Systems, Near Earth Object Working Group, Move an Asteroid Competition, MoonMars Workshop, and Space for Humanity.

IAC Participation

Every year, the majority of the SGC delegates and participants also attend the International Astronautical Congress the following week. SGC is held in conjunction with the IAC to give the delegates greater access to the experts at IAC and to share their work. Several of the SGC delegates gave presentations at IAC. As an example, at the IAC, Sanjoy presented the idea of a universal astronaut patch (The Blue Marble), a spin off of the workshop, during the Human Space Endeavors Symposium. The idea was well received and many Blue Marble flags were distributed, including to Dale Thomas: NASA Constellation deputy manager, Louis Friedman: Executive Director of the Planetary Society, So-Yeon Yi: Korean Astronaut, Jean-Jacques Dordain: director general of the European Space Agency, and Michael Simpson: president of the International Space University, among others.

The Blue Marble flag served as a backdrop during the SGC and was featured prominently at the SGAC Exhibit Booth. Laura Garcia Oviedo wrote an article for the Argentinean paper "La Nacion" on IAC that featured the Blue Marble concept: http://www.lanacion.com.ar/nota.asp?nota_id=1055188. Sanjoy was also radio-interviewed during the IAC for Seth Shostak's SETI radio show on human space exploration (<http://radio.seti.org/past-shows.php#2008-10-06.php>). That show was then broadcasted on the National Public Radio (NPR) in the US.

International Astronautical Federation Young Professionals Programme

Throughout the week, the IAF Young Professionals Programme (YPP) took place during the IAC. This year, SGAC took a strong role in the organising and execution of the second annual YPP. SGAC assisted Stacey Edgington of NASA, as well as others, in bringing together IAC delegates under 33 years old who are not still classified as students. They hosted several speakers from the major space agencies and two networking events for the young professionals and retired delegates of the IAC to come together and exchange their views on the space industry and learn from each other.

UN IAF Workshop

The United Nations Office for Outer Space Affairs (UN-OOSA) and the International Astronautical Federation (IAF) jointly organised a Workshop on the theme "Integrated Space Technology Applications - Support to Managing Potentially Hazardous Events", from 26 to 27 September 2008. The Workshop was held in conjunction with the 59th International Astronautical Congress (IAC).

This Workshop was the eighteenth meeting jointly organised by the Office for Outer Space Affairs, under the United Nations Programme on Space Applications, and by the International Astronautical Federation. It builds upon the recommendations and experience gained from previous workshops.



The Workshop addressed a range of space-related technologies, services and information resources available for support to hazard management from short-term emergency activation of resources to help for long-term planning of mitigation activities.

SGAC has had a strong presence in these UN/IAF workshops. This year SGAC was represented by the Regional Coordinator for Africa, Castroy Ntullu. In 2007 the workshop took place in Hyderabad India and SGAC was represented by the Executive Officer, Agnieszka Lukaszczyk. In 2006, the National Point of Contact for India (and previous Regional Coordinator for Asia Pacific), Bee Thakore, presented on behalf of SGAC in Valencia, Spain.

During this workshop SGAC presented during a Round Table Discussion which was organised with participation of top-level representatives of Space Agencies, Civil Protection agencies and other relevant national, regional and international institutions and organisations from both space faring and non-space faring countries. The purpose of the round table was to establish a direct dialogue with the Workshop participants on how space technologies and policies can contribute to hazard management programmes in developing countries. The round table was moderated by the Chairman of UN COPUOS, Ambassador Ciro Arévalo Yepes, and the panelists were from Argentina, Mexico, Nigeria, Sri Lanka, Thailand, and ESA, among others.



Highlighted 2008 SGAC Projects

Youth for Global Navigation Satellite Systems (YGNSS)

The YGNSS (Youth for Global Navigation Satellite Systems/Why GNSS) project was initiated in April 2008. Between April and the Space Generation Congress (SGC), the team worked online to recruit members and establish the foundation and framework for future activities. The main goals include information dissemination of GNSS and providing the youth's perspective on issues related to GNSS applications, interoperability and international cooperation. While the majority of delegates on the team were later not able to attend the Congress due to financial/visa issues, many still participated online. Currently, the team has recruited members with diverse educational and professional backgrounds from countries, such as the United States, South Korea, India, Pakistan, Cameroon, Nigeria, Tanzania, Guatemala, Egypt, Kuwait, Iran, and Colombia.

The YGNSS team had its first official face-to-face meeting among fellow delegates at the SGC 2008 in Glasgow, Scotland. During those few days YGNSS conducted the following activities: a brief demonstration of geocaching (a treasure hunting game using GPS receivers) during the International Astronautical Congress (IAC), further develop the GNSS brochure to educate the youth on the benefits of GNSS applications, collect education resources related to GNSS for its YGNSS education portal, and submit an abstract for the 2009 ISU Symposium.

YGNSS project co-lead, Stephanie Wan, was invited to present at the 3rd ICG on December 8-12, 2008 in Pasadena, California. The successful presentation in Working Group C: Information Dissemination led to further strengthening ties between providers and UN OOSA.

During early December 2008, a one month international opinion poll on GNSS was launched in order to gain a greater youth's perspective of GNSS. Despite timing the poll during winter holidays, the poll received a large response, and was included for analysis in the 2009 ISU Symposium paper, youth's perspective on the GNSS applications for civil security purposes."

As for the Education Portal, initial materials have been collected over the past few months. The team agreed that an open source wiki-styled website to allow contribution from all GNSS professionals and students would be the best approach in creating a comprehensive education resource portal.

Although YGNSS is still a new initiative, the team has been able to recruit and receive positive feedback from similarly passionate students and young professionals around the world, as well as the encouragement and support of the ICG, NASA, and GPS industries.

The team intends on utilizing SGAC's observer status to present and bring further awareness to developing/emerging space nations how GNSS applications can benefit their citizens and youth in particular. With the continuous growth of GNSS in the field, YGNSS hopes to truly bring awareness to the future generation of GNSS users, the youth.



Next 50 Years Vision Project

Project Background

Since December 2006, SGAC in partnership with the Frederick S. Pardee Center for the Study of the Longer-Range Future, the Boston University Center for Space Physics, The Planetary Society and the Secure World Foundation, is conducting an ongoing project to determine youth visions for the next 50 years of space exploration. The first stage of the project saw 900 youth visions supplied in an online survey, which were summarised by a team of youth volunteers and presented at the symposium “The future of space exploration: Solutions to earthly problems” taking place in Boston, USA that took place from 12 - 14 April 2007 featuring prominent individuals such as Freeman Dyson and Dr Harrison Schmitt. This input has gained wide spread acceptance and praise from policy makers, space agencies, delegations at the United Nations Committee for Peaceful Uses of Outer Space, the then-President of the Republic of India and has also been presented to general audiences in the US and UK. Further surveys have been carried out by a smaller team of volunteers and presented at the 12th International Space University Symposium on “Space Solutions for global challenges” in Feb 2008 in Strasbourg. The compilation of this ongoing process was also recently presented by one of the members of the SGC 2008 team at the International Astronautical Congress 2008 in Glasgow.

A couple of standard products were designed but as we take the project further, it is not only highly desirable but essential to consolidate all information from the original survey inputs, further discussions on the forums and invite interested young students and professionals to help us identify the collective emergence of this study. Hence, the main deliverables that were set by the project lead to be achieved by end of SGC 2008 included:

- An Executive Summary - approximately 15 pages
- A book chapter structure and layout
- Options to publish the Executive summary and book
- A target date for finish of the book
- Future steps on how we will keep the work ongoing
- Flyer/poster or advert
- A work-in progress draft of the message to call for input to the book
- How we can spread the word about the book and costing strategy

SGC 2008 Project Team

It is important to note that two delegates were completely new to the workings of SGAC and the 50 years visions project and did exceptionally well to research objectively and contributed significantly to progress the work on the project. Originally a larger team had registered for the project, however a variety of reasons prevented them from being at SGC 2008 and the above team is eager to involve them in our upcoming activities.

Design Considerations

The delegates carefully considered retained some key features of the artwork that was designed by volunteers taking part in the project since its early phases. This artwork shall be represented adequately in the final products being worked on now and those to come in the future. Important guidelines resulted from the discussions during SGC 2008 to formulate a ‘style guide’ with recommendations on Fonts, Page layouts, images and



figures to be used. Some of these will be revised in the light of publisher requirements and then shared on the online project space at the SGAC website.

Editors and How the Book Shall Be Written

The SGC 2008 project team delegates agreed to be co-editors, with Bee Thakore as chief editor. We shall invite other co-editors as well and will approach all current project groups at SGAC that are working on the said chapters to contribute to 'boxed texts' that focus on their work and findings of the particular subject. For e.g. Space Solutions and impact, would contain one or two boxed texts on 'Disaster management' and 'Space for addressing the Millennium Development Goals' which are being worked on in detail by the Space for Humanity project group and likewise. Some SGAC members who also have been very involved throughout the lifetime of the project via the forum discussions or helping analyse survey results or in presenting it to different audiences are also welcome to join as co-editors given that they can commit to the set schedule.

Going Forward

We truly want this to be a collaborative effort as "we are smarter than I!" The current documents are shared via the '50 years Products Factory' (<http://www.spacegeneration.org/node/2124>) and working documents shall be updated and shared by different members at the '50 years Products Factory Floor' (<http://www.spacegeneration.org/node/2125>). These online spaces will be populated with more products as the SGC 2008 team collaborates through the year. The targeted date for said final products is May/June 2009. The team is determined to source a mechanism, which is cost effective, i.e. either surpassing publishing fees and inventory overheads by digital 'pay-as-you-print' publishing or via separate sponsorship. The team shall seek advice from SGAC working groups (Fundraising, communications and PR, etc) and SGAC Executive Council to progress work on the different aspects. The full 50 Year Vision Summary can be found on the SGAC website.

Yuri's Night

Every April 12th, Yuri's Night celebrates both the first human to go into space (in 1961) and the first Space Shuttle launch (in 1981) with local events around the planet. Worldwide, there were 198 total events, in 50 countries on all 7 continents. Many thanks to everyone from Space Generation who hosted an event, attended an event, visited our website, or promoted Yuri's Night in their communities.

This year SGAC played a major role in hosting the largest Yuri's Night event at NASA Ames Research Center near San Francisco, California. We had a 12 hour long event with nearly 100 science, art, technology exhibitors all related to the theme of the event, "Radical Technology for a Sustainable Future." There were also 30+ musical performances and 15+ non musical performances performing on 4 stages plus 20 speakers throughout the event. We even had a 1 hour air show. All of this together brought in more than 8,000 people to celebrate the first flight of a human in space and the first flight of the US Space Shuttle. SGAC had great exposure at the event from "Co-Hosting" it with NASA (billing on the website) to having the line "NASA and Space Generation Advisory Council Co-Host Yuri's Night" on every ticket printed for the event and huge signs on all the stages and throughout the event. We also had 188 VIPs ranging from people who paid extra for the VIP experience to NASA administrators, Legislative members of the state of California Government, local Mayors and officials, the founder of Apple and the Chief Financial Officer of Apple as well as other major



companies in the area. (Intel, Sun, Google, Airship Ventures, Coalition for Space Exploration, California Space Authority, and more). All of the VIP received an information bag with some NASA items in it as well as SGAC items including newly printed SGAC Trifold Brochures.

This was a great event that provided great exposure to a large number of people for SGAC, Yuri's Night, space, and NASA. A big thank you to the people on these lists who helped on this, Jessica Culler, Chris Boshuizen, and Sanjoy Som, who came from Seattle to help out. There are literally hundreds of volunteers from the San Francisco art community, NASA, and other groups who helped make this event happen.

Near Earth Object Group

This year, given a reduction in relevant staff and specific attendees for the various groups, it was decided prior to SGC 2008 to combine the two groups that were dealing with asteroids, specifically this meant the combination of the Move An Asteroid Technical Paper Competition group (moderator: A.C. Charania) and the more general Near Earth Object (NEO) group (moderator: Alex Karl). Mr. Karl was unable to attend SGC 2008 and Mr. Charania acted as overall on-site moderator. The two groups were combined and the tasks of the two groups were approached done sequentially, with discussion starting on the Move An Asteroid competition and then going to general NEO activities. The group consisted of a maximum of seven individuals at any one time. Group members included Mary D'Souza, Dae In Park, Andrew Bacon, Yeong Ju Kim, Tee Thakore, and Kat Corderre (representing Australia, Korea, United Kingdom, India, and the USA). These discussions were held over a three day period during SGC 2008.

Near Earth Object Workgroup at SGC 2008

A primary part of the discussion focused on brainstorming general NEO activities that SGAC could become involved with (either at SGC/IAC or throughout the year). The only criterion was that the activities would need to involve the concept of NEOs. After general brainstorming, there was a down select to the top three ideas. After calculating the average rating of the ideas, the final idea was agreed upon by the project members. This idea involved a video presentation explaining the positive as well as negative aspects of Near Earth Objects. The video would describe the threat from NEOs (including Earth collisions) as well the potential for exploration (human/robotic) and resource development. This video could feature animations, simulations, live expert advice, students explaining the concepts and theories behind NEOs, and a few of the most important mitigation concepts. A video installation could be developed that would be complementary to the Space Generation Advisory Council booth. The booth could also host fun and educational interactive exhibits related to NEOs. More detail was developed on this concept including potential implementation including schedule and cost. The group also discussed possible ways to help in the policy formulation of humanity's response to the NEO threat. This was specifically in developing ways of how the SGAC could help the Association of Space Explorers (ASE) and their initiatives within the United Nations to promote general awareness of the topic. This dealt with specific initiatives at ASE and others are pressing for discussion at UN COPUOS about global coordination of NEO observation and mitigation.



Appendices

Appendix A: Financial Tables and Details

Profit and Loss Statement for year ending 31 December 2008

| | 2006 | 2007 | 2008 | Notes |
|--------------------------------------|--------------------|---------------------|--------------------|-------|
| Revenue | | | | |
| SGAC Sponsorship | 5,920.43 | 5,997.00 | 41,441.80 | |
| SCG 08 Sponsorship | 14,887.30 | 15,718.47 | 5,327.73 | 4 |
| SGC 08 Registration & Accom Fees | 23,129.25 | 14,802.26 | 17,294.67 | 4 |
| SGC 08 Fees paid through website | - | - | 1701.13 | 4 |
| Interest Earned | 0.54 | 3.47 | 10.61 | |
| Forgiven Payments | 350.00 | 3,030.00 | 440.40 | |
| Website advertisement | - | - | 200.00 | |
| Foreign currency adjustment | - | - | 380.99 | |
| Total Revenue | € 44,287.52 | € 39,551.20 | € 66,797.33 | |
| Less Expenses | | | | |
| Executive Director's fees | 6,000.00 | 10,500.00 | 5,250.00 | |
| Executive Assistant's fees | 6,600.00 | 6,000.00 | 4,121.82 | |
| Executive Assistant's apartment rent | 4,508.00 | 3,877.00 | 2,100.00 | |
| SGAC Operating expenses | - | - | 6,303.38 | |
| Office Rent | 2,979.95 | 2,938.96 | 6,433.20 | |
| SGC Event Manager | 3,030.00 | - | - | 5 |
| SGC Operating Expenses | 6,286.75 | 7,389.80 | 8,417.35 | 6 |
| Sundry Expenses | 1,872.25 | 303.47 | 523.12 | |
| Depreciation | - | 237.59 | 482.43 | 7 |
| Bad Debt Write Off | - | 16,891.52 | 6,604.55 | 8 |
| IT Equipment | 719.97 | - | - | |
| Promotional Material | 3,287.44 | - | - | |
| Travel | 2,688.02 | - | - | |
| SGAC USA Loan | - | - | 2,767.86 | |
| Total Expenses | € 37,972.38 | € 48,138.34 | € 40,003.66 | |
| Net Profit / (Loss) | € 6,315.14 | (€ 8,587.14) | € 23,793.68 | |



Balance Sheet as of 31 December 2008

| | 2006 | 2007 | 2008 | Notes |
|-------------------------------|-------------|--------------|-------------|--------------|
| Assets | | | | |
| Cash at Bank – PSK Austria | 3,250.17 | 24.81 | 0.00 | |
| Cash at Bank – PayPal | - | 702.73 | 5,113.86 | |
| Cash at Bank – Bank Austria | - | - | 19,616.41 | |
| Debtors | 6,000.00 | - | 656.78 | |
| IT Equipment | 719.97 | 482.38 | 0.00 | |
| SGAC USA Loan | 641.52 | - | - | |
| | € | | € 22,163.20 | |
| Total Assets | 10,611.66 | € 1,209.92 | | |
| Liabilities | | | | |
| Creditors | - | 440.40 | 1,650.00 | |
| Loan from Will Marshall | - | 2,400.00 | - | |
| SGC 2006 event manager salary | 3,030.00 | - | - | |
| Member Reimbursements | 625.00 | - | - | |
| SGAC USA Loan | | | 2,767.86 | |
| Total Liabilities | € 3,655.00 | € 2,840.40 | € 4,417.86 | |
| Net Assets | | | | |
| Net Assets | € 6,956.66 | (€ 1,630.48) | € 22,163.20 | |

Member's Funds

| | | | |
|-----------------------------|------------|--------------|--------------|
| Opening Member's Funds | 6,41.52 | 6,956.66 | (€ 1,630.48) |
| Net Profit / (Loss) | 6,315.14 | (8,304.38) | € 23, 793.68 |
| Total Member's Funds | € 6,956.66 | (€ 1,630.48) | € 22,163.20 |

Notes to and Forming Part of the Accounts

1. Statement of Accounting Policy

The financial statements were prepared in accordance with required accounting principles and applicable legal requirements. They present a true and fair view of the organisation's net assets, financial position and the results of the organisation.

2. Management Committee and staff members

The names of the management committee members who have held office during the year are:

| | |
|-----------------|---------------------------------|
| Co-Chairpersons | Alex Karl Ben Baseley-Walker |
| Secretary | Andrea Boyd Kevin Schillo |
| Treasurer | Michael Brett |

The members of the management committee did not receive remuneration through the year.

Contracted support staff engaged throughout the year were:

| | |
|---------------------|-------------------------------------|
| Executive Director | Chris Boshuizen (three months only) |
| Executive Assistant | Agnieszka Lukaszczyk |

As of the balance sheet date the company had two employees.

3. Definition of terms used:

SGAC Space Generation Advisory Council

SGAC USA Space Generation Advisory Council - USA Branch. A separate legal entity to SGAC. The accounts, assets and liabilities of SGAC USA are not linked to SGAC in any way and are therefore not covered by this report. Please refer to the annual report of SGAC USA for more information.

4. These figures does not represent the total revenue generated by SGC 2008 as SGAC USA also contributes to the event. Please refer to the SGC 2008 Final Report for more information.

5. The SGC 2007 Event Manager was paid by SGAC USA.

6. This figure does not represent the total expenses incurred by SGC 2008, as SGAC USA also contributes to the event. Please refer to the SGC 2008 Final Report for more information.
7. Depreciation of IT Equipment calculated using the Prime Cost Method with an effective life of 3 years.
8. This figure represents 19 invoices issued for delegates of SGC 2008 who either cancelled following the invoice being issued or failed to show.

Committee's Declaration

Statement by the Executive Committee

The members of the Executive Committee of the Space Generation Advisory Council are of the opinion that:

- a) The accompanying Profit and Loss Statement is drawn up so as to give a true and fair view of the operations of the Organization for the period ended December 31, 2008
- b) The accompanying Balance Sheet is drawn up so as to give a true and fair view of the state of affairs of the Organization at December 31, 2008
- c) As at the date of this statement, there are reasonable grounds to believe that the Association will be able to pay its debts as and when they fall due.



Appendix B: Additional SGAC Websites

Facebook

<http://www.facebook.com/group.php?gid=2218401662&ref=ts>

YouTube

<http://www.youtube.com/profile?user=spacegeneration>

MySpace

<http://groups.myspace.com/spacegeneration>

Wikipedia

http://en.wikipedia.org/wiki/Space_Generation_Advisory_Council

Blogs

A selection of Blogs (not extensive):

<http://q80girl.blogspot.com/>

<http://sendbeetospace.blogspot.com/>

<http://spacesooner.blogspot.com/>

<http://stubek.blogspot.com/>

<http://dysonsphere.wordpress.com/tag/space/>








<http://myspace.com/yurisnight>










Further Space Generation blogs on the main website:

<http://www.spacegeneration.org/blog>



Appendix C: SGAC 2008 Executive Team

| | Title | Name | Location |
|---|--|-------------------------|-----------|
| Executive Office | | | |
|  | Global Chairman | Alex Karl | Germany |
|  | Co-Chairman | Ben Baseley-Walker | USA |
|  | Executive Officer | Agnieszka Lukaszczyk | Austria |
| Executive Council | | | |
|  | Executive Secretary | Andrea Boyd | Australia |
|  | Treasurer | Michael Brett | Germany |
|  | Regional Coordinator – Africa | Michael Kio | Nigeria |
|  | Regional Coordinator – Africa | Castory Ntullu | Tanzania |
|  | Regional Coordinator – Asia Pacific | Mohammad Shafiq | Pakistan |

| | | | |
|---|---|------------------|----------------|
|  | Regional Coordinator – Asia Pacific | Yohan Ferreira | Sri Lanka |
|  | Regional Coordinator – Europe | Angela Whiteside | United Kingdom |
|  | Regional Coordinator – Europe | Jesper Jørgensen | Denmark |
|  | Regional Coordinator – Middle East | Mahasa Taheran | Iran |
|  | Regional Coordinator – Middle East | Aysegul Tansen | Turkey |
|  | Regional Coordinator – North America | Rob Guinness | USA |
|  | Regional Coordinator – North America | Israel Ojeda | Mexico |
|  | Regional Coordinator – South America | Martin Canales | Peru |
|  | Regional Coordinator – South America | Paul Acquatella | Venezuela |

Appendix D: SGAC 2008 National Points of Contact

| Country | Name |
|---------------------|--------------------------|
| Africa | |
| Burkina Faso | Daouda Bitié |
| Cameroon | Hubert Foy Kum |
| Ethiopia | Bekele Tujuba |
| Ethiopia | Biniyam Yosef Kebede |
| Ghana | Abdul-mumin Yussif |
| Kenya | Laban Maiyo |
| Kenya | Susan Murabana |
| Mauritius | Assad Anathallee |
| Nigeria | Onyema Benigna Ajuogu |
| Nigeria | Olakanmi Olabode |
| Rwanda | Frank Habineza |
| Tanzania | Mlenge Fanuel |
| Tanzania | Elijah Kondi |
| Zambia | Paul Simpemba |
| Zimbabwe | George Bapete |
| Afghanistan | Ahmad S. Hakimyar |
| Asia Pacific | |
| Australia | Nebojsa Pajkic |
| China | Maryonsail Dong |
| India | Athiye Jawad |
| India | Vikrant Narang |
| Indonesia | Miftachul Hasana |
| Japan | Yuki Takahashi |
| Japan | Hiroshi Yamashita |
| Myanmar | Aung Chan |
| Nepal | Suresh Bhattarai |
| New Zealand | Jackson Wood |
| Pakistan | Muhammad Atteeq |
| Pakistan | Wajahat Nasar |
| Sri Lanka | Thiwanka chameera |
| Thailand | Pathara Limsira |
| Thailand | Duangkaew Noppornprom |
| Europe | |
| Austria | Alexandra Ruths |
| Belgium | Pieter Bettybier |
| Belgium | Pieter Jan Van Asbroeck |
| Croatia | Marko Gacesa |
| Germany | Juergen Schlutz |
| Germany | Oliver Troll |
| Greece | Nelli Anastasiadi |
| Poland | Damian Bielicki |
| Poland | Michał Moroz |
| Portugal | Pedro Rodrigues |
| Romania | Florin Mingireanu |
| Romania | Maria-Laura Voda |

| | |
|---|-----------------------|
| Spain | Maite Trujillo |
| Switzerland | Cedrick Sapey |
| Ukraine | Olga Stelmakh |
| United Kingdom | Rishi Sharda |
| Middle East | |
| Iraq | Muthana A. Hassan |
| Kuwait | Ghanim Alotaibi |
| Kuwait | Ahmad Shakeeb |
| Turkey | Aziz Kayihan |
| North, Central America and the Caribbean | |
| Costa Rica | Andres E. Mora Vargas |
| Guatemala | Jeffrey Rivera |
| Jamaica | Marc Cornwall |
| Mexico | Francisco Mtz Nieto |
| USA | Alan Steinberg |
| South America | |
| Argentina | Pablo de Leon |
| Bolivia | Roger Vasquez |
| Brazil | Konrad Link |
| Colombia | Nicole Jordan |
| Peru | Martín Canales |
| Venezuela | Ana A. Perez |



Contact

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The SGAC 2008 Annual Report was compiled and edited by Ariane Cornell, Executive Director, appointed April 2009. She had assistance from Rishi Sharda and Michael Brett in editing. The SGAC Executive Committee is grateful to Ms. Cornell, Mr. Sharda, and Mr. Brett for donating their time. Members of the Space Generation Advisory Council worldwide were the primary contributors to the content of the report.

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