

July 2008



SGAC

Newsletter

An update from the Space Generation Advisory Council in support of the UN Programme on Space Applications for its global space advocates



Members of the SGAC Delegation by the Memorial Plaza at the UN COPUOS Session in the UN Building in Vienna, Austria

From left to right: Johanna Catena (member, SGAC working group), Bee Thakore (SGAC RC Asia Pacific), Julie Aboyu (SGAC Co-NPoC France), Maite Truillo (SGAC ECOSOC Representative), Ben Baseley-Walker (SGAC Co-Chair), Olga Stelmakh (SGAC NPoC Ukraine) along with members of the Spanish National Delegation.

HEADLINES

* Winners of the Move an Asteroid 2008 International Competition announced
* SGAC Represented at UN COPUOS * SGAC Update * Regional Updates * Brand New Expert Perspective featuring Peter Kokh!

Message from the New SGAC Co-chair

Dear Space Generation,

The past month has been eventful with UN COPUOS Meeting kept us busy in Vienna and the SGAC/ISU dinner was a blast! Further, we had the pleasure of announcing the winners of the Move an Asteroid 2008 competition, which you can read all about in the story just to the right.

We also had some personal changes, Dr. Chris Boshuizen, our Executive Director stepped down after 2 years after filling the position with dedication, enthusiasm and expertise. We wish him the best for his future. On the other hand we are happy to announce the new lead of the Strategic Communications Team (www.spacegeneration.org/node/34), Daniel Petrova, who is waiting for YOU to get involved and lend a hand in making SGAC more widely known.

Another way of getting involved is to keep an eye on our continuously updated volunteer positions page www.spacegeneration.org/volunteer. Hope to hear from you soon. Now, happy reading and ad astra!

Alex & Ben - SGAC Co-Chairs

Note from the team

Greetings to all of the Space Generation from the News team! This issue we are excited to introduce SGAC New PR and communication lead, report on the exciting representation of SGAC at the last UN COPUOS General meeting in mid June and announce the Winners of the 'Move an asteroid 2008' International Competition. We look forward to hearing from you for the next issue to highlight the news that matter to you... Till soon, enjoy reading!

Winners of "Move An Asteroid 2008" International Competition announced on 100th Anniversary of Tunguska Explosion

Vienna, Austria – 30 June 2008 – The Space Generation Advisory Council, the world's largest group representing youth perspectives on space exploration to the United Nations and national space programs today announced the winners of an 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). 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. 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." Ms. D'Souza's concept involves wrapping an asteroid in a reflective

IN THE SKIES

July is the best month to view 'Globular clusters'. The most spectacular cluster located in

the northern hemisphere is M13. Located some 25,000 light years (ly) from us in the constellation Hercules, M13 glows at magnitude 5.8 and can be glimpsed on a clear moonless night from a dark observing site.

film (referred to as a "body" solar sail). Such a coating may increase the asteroid's reflectivity, enabling deflection by solar radiation pressure. Ms. D'Souza will receive a trip to present her paper at this year's Space Generation Congress (SGC) and International Astronautical Congress (IAC) which take place in Glasgow, Scotland from late September until early October 2008.

Second place is awarded to Mr. Andrew Bacon of the Department of Electronic and Electrical Engineering at the University of Bath in Bath, United Kingdom for his paper entitled "The Use of Electromechanical Resonators for the Mitigation of Earth Threatening Asteroids and Comets." Mr. Bacon's concept involves the use of electromechanical resonators to build up waves within an asteroid or comet that would break it up. Mr. Bacon will receive a trip to present his paper at this year's SGC.

"We received submissions from all over the world and thank all the participants for developing creative Near Earth Object (NEO) mitigation strategies. The first and second place winners demonstrated an ability to think creatively about the problem and to explain it to the judges.", said A.C. Charania, administrator of the Move An Asteroid 2008 Competition. "We hope to continue this competition next year and look forward to the presentations of the winners at this year's Space Generation Congress (SGC) and International Astronautical Congress (IAC)."

"It is great to see such an interest in this topic from young people all over the world. Hopefully with competitions like this, SGAC can further increase the involvement of youth in this important field of current space research.", said Alex Karl, Co-Chairperson of the Space Generation Advisory Council.

For more information about the "Move An Asteroid 2008"

International Student & Young Professional Technical Paper Competition, please visit the Competition Website: <http://spacegeneration.org/> asteroid or contact Mr. A.C. Charania, "Move An Asteroid 2008": International Technical Paper Competition Coordinator at asteroid@spacegeneration.org.

(Alex Karl, SGAC Co-Chair)

Country Insight - Venezuela: Inspiring our children!

We are happy to feature Venezuela to take a close look how SGAC youth are truly making a positive impact on education in the country:

A warming morning on May of this year, Ana A. Perez was invited to share some time with the little kids (4 or 5 years old) at the kinder garden 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.

"What I like the most about the whole thing is watching the children's faces and see in their eyes so much motivation and excitement about the space!... I hope to repeat this again and make it part of the SGAC Educational Project"

For more information and photos:

<http://real-spatium.blogspot.com/2008/06/motivando-el-futuro.html>

ASME USB Congress

On June 21st during the ASME USB Congress, which was organized by Oscar Monagas; USB student and Alessandro Dos Santos; current ASME president, there were two really important presentations given by Prof. Gregorio Drayer and Dr. Russell Kerschmann who came back to Venezuela.

Drayer talk about "Acuicultura: un enfoque hacia soporte de vida y biosférica". <http://www.astrodrayer.com/>.



Dr. Russell Kerschmann and other experts address the ASME Congress in Venezuela

Credit: Ana Perez, Venezuela

And

Kerschmann's presentation was about "Life Support in Outer Space". He talked about the activities developed by the Space Biosciences Division, NASA Ames.

<http://spacebiosciences.arc.nasa.gov/russ.html>

For more information:

<http://real-spatium.blogspot.com/2008/06/vii-congreso-anual-de-ingeniera>.

Water rocket Contest

On June 19th, a water rocket contest was organized 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.

"It was a really good contest. We hope to repeat it again!" For more info:

<http://real-spatium.blogspot.com/2008/06/competencia-de-cohetes-propulsi...>

(Ana Perez, SGAC NPoC Venezuela)

Fellowship Programme for Study in Mexico for SGAC members

The Regional Centre for Space Science and Technology Education for Latin America and the Caribbean (RECTEALC) has started a fellowship programme where you can come study at the centre in Mexico for 1 year fully funded! You can find all information here:



PERSPECTIVE

Mother Earth and Father Sky by Peter Kokh

Peter Kokh is the editor of the *Moon Miners Manifesto*. More about his extraordinary work can be found on www.moonminersmanifesto.com

The number of serious problems confronting the world at large today continues to grow, and become ever more difficult to manage with each passing day. The human race seems to be having a full-scale adolescent style crisis. If we do not soon emerge in fair shape, we may face something much worse than a world wide depression -- a new Dark Ages. How long that would last and to what depths we would sink, dragging our host biosphere with us, cannot be known.

Population growth is outstripping our ability to access available resources at the standard of living levels with which we in Developed World have become all too comfortable. Maintaining energy use at customary levels and maintaining the present state of "health" of the environment are beginning to look like either-or choices.

Poverty is on the rise in many areas, even in First World Nations. There is no end to a list of top level concerns. Solutions requiring investment in one area, make investment in other areas harder to support. Are we caught in an "end of times" downward spiral? I think we need to take a look at just who we are, just where we came from, how we fit into the scheme of things as a people. If we can get a better insight into these things, we will have made a big step in putting the problems in the right context to begin to see solutions.

Most people consider our planet to be the only context in which we can understand our origins, our present history, and our future. One hears remarks such as "we need to find solutions to terrestrial problems right here on our home world, not out there somewhere." Well, quite frankly, it's too late for that. Our "home world" was Africa, and modern man has been on the move to wherever our developing technology would take us for at least 80,000 years. Our world used to be flat, but now we all consider it global. While few realize it, when man first set footsteps on another world, the "world" as a continuity of human horizons shattered that global limit forever, with that first step we became children of the Sun.

On every new frontier, we faced a new set of resources - of food sources, of climate conditions, of life-threatening dangers. Each time our great resourcefulness earned us the comfort of becoming "at home" in previously alien territory. Backup a few steps to the real "Genesis." Of all the various elements of which our bodies are composed, only hydrogen is primeval. [Primeval helium is not found in living tissues.] All the higher elements have been forged in the interiors of stars which at the end of their lifetimes have exploded as "novas" scattering their debris throughout the universe. It is from such "salted" gas and dust clouds that new stars began to form with attendant rocky worlds.

Genesis has it only half right. It should read, "Of stardust thou art, and to the stars thou shalt return." Too many people think of Mother Earth alone. Where would we be without the Sun's light and warmth! The Sun is part of Father Sky. Mother Earth and Father Sky are an inseparable pair. In that context, the suggestion that all solutions to our problems should be found here on Earth is not only wrong, it is ignorant and stupid. The Moon shares Earth's orbit about the sun. It is ours, a hinterland continent with resources for us to access and use. It is Earth's "pantry".

Yes, we have major energy, environmental, and social problems, all interlinked. If accessing resources from space can help in any useful way in dealing with these crises, then assertions that we should look beneath our feet for all solutions becomes a cult of ignorance. The Moon seems to be barren, sterile. Mars may or may not be, but at best any Martian life is stunted at a very low rung up the ladder of life. Around Jupiter, Europa's extensive ice covered global ocean hides mysteries we can as yet only wonder about. The same may be so for other ice-covered moons of Jupiter and Saturn.

We know of advanced multicellular structured life forms only here on Earth. Are we alone? As mammals? as intelligent environment-modifying creatures? Many flippant answers display an incredible ignorance of how very vast the universe is not only in space, but also in time. No matter how rare other fertile "earths" may be percentage wise -- e.g. "one in a billion" -- the universe is so vast that there must be hundreds, even thousands of billions of other civilizations throughout quadrillions of cubic light years and through the most recent two thirds of the time since our universe seems to have blossomed. That said, our nearest "contemporary" neighbor may lie beyond the distance in both space and time for any meaningful interaction.

"Go and fill the world" in that sense, begins to take on an interstellar connotation. Technology may limit us to much less than that. Some worlds will be able to support native born flowerings of life such as has Earth. Others may be able to support the beginnings of life, but not allow it to get much further. Others still may have all the needed resources but not the environmental conditions. And there perhaps is our ultimate Genesis mission: to sow life where it could not have arisen on its own; to advance life where local conditions have held its evolution in check.

It is not mankind that is called to return home to the stars, but Earthlife, Gaia herself. Earthlife cannot reproduce itself elsewhere on its own. Thus, with no apology to those whom the following makes them squeamish, an intelligent dominant species can be seen as the reproductive organ of its planetary Biosphere. Through us alone, can Earth-life, Gaia, Mother Earth spread beyond its current limits. Father Sky calls us to this pilgrimage home. It calls us to fulfill the destiny of Mother Earth, and in the process tap full endowments of the Mother Earth - Father Sky union, to save Mother Earth from the ill effects of our technological adolescence. Someday, when our civilization has become more adult, we will be Solarians, children of the Solar System.

As noted, our species is not originally "Terran" but African. We have been on an epic journey of expansion to one frontier after another. To stop now, in the belief that the world cannot be more than round, a belief as mistaken as the one that held the world to be flat, would be to turn our backs on ourselves, on our origins, on our destiny. We must not hide our light under the basket of Earth's defining atmosphere. We must continue to develop the depths of our given talents. We can only do that by accepting the challenge to keep pioneering new frontiers. What other way to continue to give praise and glory to the creative forces which have forged us?

Those of us who want to look outwards for help with Earth's intractable problems, are environmentalists too. But we see "environment" as a much larger bi-parental context. Our origin is on flat plains of Africa. Our destination is wherever our pilgrimage to keep on exploring our hidden given potential will take us. "Of Stardust thou art, to the Stars you shalt return."

Mother Earth is not a spinster but wed to Father Sky. Her terrestrial brood is but the first. We must reject the demands for terrestrial solutions to terrestrial problems. We must educate others to the much vaster space-time context in which we have come into being, and within which our future lies.

You can check out more of Peter Kokh's work on www.moonminersmanifesto.com

www.spacegeneration.org/node/2036. The application and the course will be in Spanish only and it is open to people from the Latin America and the

Caribbean. If you decide to apply make sure you mention Space Generation.

SGAC Members share their UN COPUOS experience from Vienna following the fifty-first session

10 SGAC Members formed a delegation led by SGAC Executive Officer, Agnieszka Lukaszczyk at the fifty-first session of the UN COPUOS meeting. Ms Lukaszczyk made a statement in the general exchange of views and SGAC also presented two technical presentations. Bee Thakore, RC for Asia Pacific addressed the delegations on 'Youth Views on capacity building for community-based disaster management in context of the recent disasters in Asia Pacific' and Johanna Catena presented a 'Introducing a New Framework for Space Traffic Management System (STMS)'. Maite Trujillo, SGAC ECOSOC Representative participated in an informal open meeting, which brought together more than 40 delegates from France, Spain, China, Austria, Nigeria, Saudi Arabia, Japan, Chile, amongst others. This event provided Ms Trujillo with an overview of SPIDER activities, with examples given by the delegates of China, on the international support they had received and the "lessons learned" from Sichuan Earthquake. The meeting also led to an overview of the "capacity building role", "knowledge management" and "regional initiatives" of the SPIDER offices currently being staffed in Austria, Bonn, Beijing and Geneva.



SGAC Executive members Ben Baseley-Walker, Agnieszka Lukaszczyk and Bee Thakore also attended a meeting for different countries to work towards a committee that would focus on how space capacities can be utilised to compliment the work of Non-Government Organisations such as humanitarian assistance, education and outreach bodies, charities working towards welfare and development. The COPUOS meetings were also equally an unique experience for other members of the delegation, which included Muhamed Shafiq and Olga Stelmakh NPOCs for Pakistan and Ukraine respectively, who shared their experiences with us on the SGAC website: www.spacegeneration.org/node/2013 and www.spacegeneration.org/node/2012

Connecting to SGAC in social networking websites

SGAC is trying to reach out to you and other interested people currently not our members via social networking tools on the web such as Facebook, Twitter and more! We invite you to join our groups and use them as a medium to discuss topics of your interest. You can

also recruit friends for our 'Space is our future' Cause!

The SGAC Official Facebook Group

www.facebook.com/group.php?gid=2218401662

The SGAC Asia Pacific Regional Sphere!

www.facebook.com/group.php?gid=8739167054

SGAC European regional group

www.facebook.com/group.php?gid=18702625268

GET INVOLVED

Send in your contributions and suggestions to make this a better newsletter for you!

news@spacegeneration.org

Don't forget to share this with all space advocates you know!
www.spacegeneration.org

The SGAC News team is recruiting!

We currently looking for volunteers that can

- ★ Help populate interesting news stories
- ★ Interview people with questions relevant to our SGAC community
- ★ Contribute astronomy facts for our 'in the skies' section
- ★ Finding a key issue/article we want to discuss with the members in our community
- ★ Help liaison with the SGAC Communication team in order to streamline the newsletter to requirements

This will allow volunteers to meet dynamic people & experts and interact with them on topical subjects of importance as young professionals and active space advocates.

Join us at news@spacegeneration.org

How can I play a part in making space happen?

SGAC is run by young people for young people. If you share our enthusiasm for space and a strong willingness to change what we do in space in the coming years, we would like to hear from you. If you would like to work with fellow space advocates from all over the world or would like to use some of your spare time, here's how you can help:

- ★ Become a National Point of Contact
Check out www.spacegeneration.org/regions. If your country does not have a NPoC, please email officer@spacegeneration.org.
- ★ My country already has an NPoC...
 - ★ Check out volunteer position listings at www.spacegeneration.org/volunteer
 - ★ Find out what you can get involved in www.spacegeneration.org/activities
- ★ Studying marketing or good at strategic communications? Help us devise better communication tools www.spacegeneration.org/node/34
- ★ Check our website for regular updates!

www.spacegeneration.org

REGIONAL

Africa

Africa Region aimed to widen its network on Space Generation by inviting more youth from various African countries to apply for the NPoC position, and becomes the SGAC Representative for their countries. Recently the region welcomes Mr. Frank Habineza, who has been approved early July 2008 by the Council to be the NPoC for Rwanda. Still there is on going dialogue between the SGAC Regional Coordinator for Africa Mr. Castory Ntullu with some energetic youth from Egypt, Kenya and South Africa to see on how they can be the SGAC Ambassadors in their countries.

The Joint Environment and Development Management Action (JEMA), based at the University of Dar es Salaam in association with the SGAC Regional coordinator for Africa, are planning to organize the Workshop on Environmental Sound Technology to be held in Dar es Salaam, Tanzania on August 2008. The workshop aimed in bringing on the table all the technologies which are environmental friendly, in which you can not deny the fact that Space Technology is the best for the sustainability of our environment.

(Castory Ntullu, SGAC RC for Africa)

Asia Pacific

We deeply regret the large scale devastation that occurred in the Sichuan Region of the People's Republic of China during the earthquakes in June and the aftershocks that followed. We send our thoughts to all our members in the region and offer to contact us on if they are looking to help prepare their communities by creating awareness of earthquakes and emergency situation by tools available on the web. On 16th of June, Bee Thakore addressed the UN COPUOS' General Session in Vienna Austria on the topic of 'Youth Views on the capacity building for community-based disaster management, in context of the recent disasters in the Asia Pacific region'. Muhammad Shafiq, NPoC of Pakistan was also present as the part of the SGAC UN COPUOS delegation. On 24th of June, 45 years ago, the first woman cosmonaut of the world went into space She was Valentina Tereshkova. A role model for all - especially for females all over the world. She was the first to conquer Space and every other female, including our beloved Sunita Williams has followed in her footsteps. To mark this anniversary, SPACE and the Russian Centre of Science and Culture organised a Photo-exhibition and Lecture-cum-Presentation at the Nehru Planetarium, New Delhi.

(Bee Thakore, RC for Asia Pacific)

Middle East

ARISS contact has been scheduled with the Department of Astronomy and Space Sciences (DASS) at the Kuwait Science Club in Safat, Kuwait on Monday, July 14 at 17:05 UTC. Telebridge station WH6PN in Hawaii will assist with the contact. DASS aims to spread scientific awareness in the fields of astronomy and space sciences by actively engaging the public in exploring the cosmos. This educational activity will educate young people about space stations, satellites and ham radio.

If a school in your area is interested in participating in an ARISS contact, please visit the [ARISS Web page](http://www.arrl.org/news/stories/2008/07/08/10202/?nc=1) for [more information on how to apply](http://www.arrl.org/news/stories/2008/07/08/10202/?nc=1). (<http://www.arrl.org/news/stories/2008/07/08/10202/?nc=1>)

(Maryam Aljoaan, SGAC RC Middle East)

Europe

As the European Union expands, the ESA is constantly welcoming new members under its wing. This month it was the turn of the Czech Republic, whom signed their agreement for accession to the ESA Convention on 8 July in Prague.

Jean-Jacques Dordain, Director General of ESA, and Mirek Topolánek, Prime Minister of the Czech Republic met to make the landmark agreement acknowledging the strong Czech tradition of space exploration (Vladimir Remek of Czechoslovakia became the first European astronaut when he went into space in 1978).

In line with this expansion, Europe is constantly welcoming new NPoCs. This month, we welcome Julie who becomes the second NPoC for France.

(Angela Whiteside, SGAC RC Europe)

Upcoming Events

- ★ 2007-2009 is the UN-recognized "Year of Planet Earth" - <http://yearofplanetearth.org>.
- ★ UN-SPIDER Bonn Workshop: "Disaster Management and Space Technology - Bridging the Gap", organized by the United Nations Office for Outer Space Affairs (UNOOSA) and the German Aerospace Center (DLR) and with the support from the International Strategy for Disaster Reduction - Platform for the Promotion of Early Warning (ISDR/PPEW) and the United Nations University - Institute for Environment and Human Security (UNU-EHS). The workshop will be held in Bonn , Germany , from 13 - 15 October 2008 in the UN Building in Bonn