International Astronautical Federation News

Connecting @ll Space People

1/2018 (March 2018)

President's Welcome

Dear Colleagues,

Welcome to your March 2018 IAF Newsletter. As it is the first of this year, I would like to take the opportunity to wish you all a happy 2018. I am really looking forward to another successful year of collaboration and to using our space expertise to provide inspiration and benefits to the wider community.

This issue will give you a complete calendar of the Federation's activities for the year ahead. Next week, we will be convening in Paris for the IAF Spring Meetings, where there will be IAF Committee Meetings, IPC Paper Selection, the Global Networking Forum (GNF) and the Bureau Meeting. As per last year, we will again be celebrating the IAF IDEA "3G" Diversity Day on Tuesday 27 March with three events on Education and Career Development for the IAF younger generation, in collaboration with UNESCO and SGAC; on Mentoring and Sponsorship, in collaboration with Catalyst; and on the Importance of a Geographical Diverse Workforce, in collaboration with Airbus, Boeing, Head Aerospace and Lockheed Martin.

We will then meet in May in Montevideo, Uruguay, for this year's Global Series Conference on Space Applications, GLAC 2018. This conference will be a follow-up to GLAC 2014, which was organised in Paris, France. During the four years since the last GLAC, the international satellite-based applications community has moved forward significantly with planning and developments, so it is timely to take stock of progress achieved and undertake an outlook for the future of space applications on a global scale, with a specific focus also on developing space nations, such as Uruguay. Later in the year, in October, you are invited to Bremen to attend the 69th IAC. The theme of IAC 2018, #InvolvingEveryone, aligns with IAF's motto *"Connecting @ll space people"*. It is crucial for the future of the space industry to learn to successfully work together across borders, challenge norms and embrace diversity. This means cross-cultural thinking, overcoming the barriers of fixed mindset and unlocking the potential of the young generation.

I would like to express my special appreciation to our IAF Members for their presence and contribution to this newsletter. Many thanks to all for your contributions and I hope you enjoy reading it.

I look forward to what promises to be a fantastic year and I hope to see you all very soon.

With my best personal regards.

Dr. Jean-Yves Le Gall
IAF President

IN THIS ISSUE

IMPORTANT DATES 2018:

- Spring Meetings 2018 – **27-29 March**
- GLAC 2018 – **21-23 May**
- IAC 2018 – **1-5 October**
- IAC 2018 Abstract Notification Letter – **25 April**
- IAC 2018 Annoucement of Accepted Special Session Proposals – **9 April**

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International Astronautical Federation

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International Space Forum at Ministerial Level - The African Chapter (ISF2017) Nairobi, Kenya

The International Astronautical Federation (IAF) co-organized with the Italian Space Agency (ASI) and the Kenya Space Agency, **the African Chapter of the International Space Forum (ISF)** in Nairobi, Kenya on 13 February 2018. This second edition of the ISF, that followed the first edition held in Trento, Italy in 2016 was the first ISF organized at regional level, and was devoted to the African continent, addressed to the African Countries, under the IAF Vice Presidency for the Science and Academic Relations (Roberto Battiston 2015-2017; Gabriella Arrigo 2018-2020).

In Nairobi, 29 governmental delegations, mainly from Africa, along with 13 Space Agencies and International Organizations, attended the Forum chaired by Ministries and Heads of Space Agencies.

Delegates and experts discussed about space applications and technologies meeting African needs and the future challenges such as 'maritime and borders surveillance, accurate weather forecast, industrial fishing, emergency operations, environment management' as **Xavier Estico**, Chief Executive Officer of the Seychelles National Institute for Science, Technology & Innovation claimed. Global space knowledge can also 'foster development in higher education and eliminating gender disparities' added **Jean-Yves Le Gall**, IAF President, because 'when you educate a woman, you educate a village' affirmed **Raychelle Omamo**, Ambassador of the Cabinet Secretary for Defence Kenya. Space has indeed 'evolved from activities of few countries with mainly science and technology motives to a sector allowing direct socio-economic benefits for the involved countries' declared **Pascale Ehrenfreund**, Chair of the Executive Board of DLR. Space is also paramount 'to maintain the national sovereignty and the territorial integrity in Africa' as indicated by **Daniel Antonio**, High Commissioner of Mozambique in Kenya but also 'to win the fight against poverty' as mentioned by **Mahmoud Hussien Ahmed**, Chairman of the Egyptian National Authority for Remote Sensing and Space.

However, this last action must face the risk of ending the enormous abundance of African national resources if these 'are not properly managed' as pointed out by **Mabvuto Sakala**, Permanent Secretary of the Zambian Ministry of Higher Education. On this environmental sustainability need for an equitable allocation of the available resources, **Jan Woerner**, IAF Vice-

President for Agency, Parliamentarian and Ministerial Relations, invited all African nations to 'try to work as one because global challenges need a global cooperation'. Opportunely, the possibility to start working together is already offered to African Nations by **Sergio Marchisio**, Chairman of the European Centre for Space Law who called all African nations to 'support the UNISPACE+50 initiative' and **Simonetta di Pippo**, Director of the United Nations Office for Outer Space Affairs (UNOOSA) invited all participants to the upcoming UNISPACE+50 Global Space Summit in Vienna, Austria. In this regard, also **Val Munsami**, IAF Vice-President for Developing Countries and Emerging Nations, clearly stated in his keynote speech that in order for Africa to accomplish its global goals for sustainable development 'national space agencies must implement a common African space programme'.

To conclude the day, **Roberto Battiston**, ASI President, praised the remarkable level of the discussions on how to improve the economic and social well-being of people and stressed the importance of involving more the academia as 'their knowledge and expertise can help in finding improved solutions in Africa'. Given the evident successes of the first ISF in Trento in 2016 and, again, of this second edition in Nairobi, in raising the international dialogue and creating networking collaborations, **Raúl Kulichevky**, Deputy Technical and Executive Director of the Argentinian National Commission of Space Activities (CONAE) announced the new regional chapter of the ISF focusing on Latin America to take place in November 2018 in Argentina. This new event perfectly fits in the IAF plans to reach out to space developing and emerging nations and continues to implement the IAF's mission of connecting all space people.

The delegations present in Nairobi endorsed the Africa Page/ Nairobi Statement to be added to the Trento Space Statement approved by consensus in 2016.

On February 14TH the delegations from African countries and international organizations also visited the Broglio Space Center (BSC) in Malindi, Kenya, a joint Italian-Kenyan project focused on tracking operations and data receiving. The delegates admired the facilities and the capabilities of local human resources.

IAF Spring Meetings 2018

As each year, the IAF is pleased to invite you to its Spring Meetings taking place in Paris, France where the IAF community will get together for three days, from 27 – 29 March 2018 in New CAP Event Centre. In these three days IAF Administrative and Technical Committees meet and the International Programme Committee selects the abstracts to be presented during the 69th International Astronautical Congress to be held in Bremen, Germany, 1 - 5 October 2018.

This year it will be particularly challenging given the record-breaking number of abstract submissions ever registered!

Spring Meetings 2018

More than **4,300** abstracts were submitted, surpassing abstract submissions for IAC 2017 in Adelaide by almost 900 and beating the previous record of IAC 2013 in Beijing by more than 15%. A record number of countries represented is also to be recognized: abstracts have been submitted from **90 COUNTRIES**.

Authors will be informed about acceptance by 25 April 2018 and all accepted abstracts will be available on the IAF website.

IAF 2018 SPRING MEETINGS – MEETING PLANNER

Time	Event	Room
Tuesday 27 March 2018		
08:00 – 09:30	IDEA Breakfast	Eiffel
09:30 – 11:00	Committee for Liaison with International Organisations and Developing Nations (CLIODN) Meeting	Seine 1
09:30 – 11:00	Sub-Committee on Satellite Commercial Applications Meeting	Seine 3
09:30 – 11:30	Entrepreneurship & Investment Committee Meeting	Seine 8
09:30 – 12:30	Space Education and Outreach Committee (SEOC) Strategy Meeting	Seine 9
10:00 – 12:30	Finance Committee Meeting	Seine 3
10:00 – 13:00	IAA Space Debris Committee Meeting	Seine 7
10:30 – 12:30	IAF Excellence in "3G" Diversity Award Subcommittee Meeting	Seine 2
13:00 – 14:00	IDEA Lunch	Eiffel
14:00 – 15:30	Integrated Applications Meeting	Grenelle 3
14:00 – 16:00	IAA SG4.23 Post-Mission Disposal for Micro and Smaller Satellites	Seine 1
14:00 – 16:00	IPC Steering Group Meeting	Seine 2
14:00 – 16:00	Industry Relations Committee Meeting	Seine 3
14:00 – 16:00	Workforce Development - Young Professional Programme Committee (WD-YPP) Meeting	Seine 4
14:00 – 16:00	Space Economy Committee Meeting	Seine 8
14:00 – 16:30	Space Security Committee Meeting	Seine 7
16:00 – 17:00	GLEC2019 Meeting	Seine 3
16:00 – 17:30	Committee for the Cultural Utilisation of Space (ITACCUS) Meeting	Seine 1
16:00 – 17:30	IAF Honours and Awards Committee (HAC) Meeting	Seine 2
16:00 – 17:30	Knowledge Management Technical Committee (KMTC) Meeting	Grenelle 3
16:00 – 18:00	Space Generation Advisory Council (SGAC) Advisory Board Meeting	Seine 8
16:00 – 18:00	Space Communications and Navigation Committee (SCAN) Meeting	Seine 9
17:00-18:00	Working Group on Emerging Countries	Seine 3
17:30 – 18:00	Knowledge Management Technical Committee (KMTC) Work Group Meeting	Grenelle 3
18:00 – 19:30	IDEA Afterwork Gathering	Eiffel
Wednesday 28 March 2018		
08:00 – 08:30	GNF – Results from the International Space Forum in Nairobi – The African Chapter	Seine (5, 6 & 7)
08:30 – 09:00	GNF – Moon Village Association Contribution to Moon Settlement	Seine (5, 6 & 7)
09:00 – 10:00	Advisory Committee on History Activities (ACHA) Meeting	Grenelle 3
09:00 – 10:00	Moon Village Association Meeting	Seine 1
09:00 – 10:00	Space Power Committee Meeting	Seine 3
09:00 – 11:00	Commercial Spaceflight Safety Committee Meeting	Seine 4

09:00 – 11:00	Space Operations Committee Meeting	Seine 8
09:00 – 11:00	Space Education and Outreach Committee (SEOC) Meeting	Seine 9
09:00 – 13:00	IAF Bureau Meeting Part 1	Roof top
09:30 – 15:00	Astrodynamics Commitee Meeting	Seine 2
10:00 – 11:00	MMoon Village Association Meeting	Seine 6
10:00 – 12:00	IAF GRULAC Committee Meeting	Seine 3
10:00 – 12:00	Space Life Sciences Commitee Meeting	Grenelle 3
10:00 – 13:00	Human Spaceflight Commitee Meeting	Seine 1
11:00 – 12:00	B.1.6 Joint Global Technical Session for Bremen on Citizen Science	Seine 9
11:00 – 13:00	Space Systems Committee Meeting	Seine 4
11:00 – 13:00	Enterprise Risk Management Committee (ERMC) Meeting	Seine 8
11:00 – 15:00	Materials and Structures Committee Meeting	Seine 6
12:00 – 13:00	International Projects/Programme Management (IPMC) Committee SSASC Meeting	Seine 3
12:00 – 13:00	Microgravity Sciences and Processes Committee Meeting	Seine 9
12:30 – 15:00	Space Transportation Committee Meeting	Grenelle 3
13:00 – 14:30	Space Astronomy Committee Meeting	Seine 3
13:00 – 14:30	Space Societies Committee Meeting	Seine 9
13:00 – 15:00	Space Propulsion Technical Committee Meeting	Seine 4
13:00 – 15:00	Space Exploration Committee Meeting	Seine 8
13:00 – 17:00	Earth Observation Committee/ GEOSS Subcommittee Meeting	Seine 1
14:30 – 16:00	Space Museums and Science Centres Committee Meeting	Seine 9
15:00 – 17:00	Space Universities Administrative Committee (SUAC) Meeting	Seine 2
15:00 – 17:00	International Project/Programme Management Committee (IPMC) Meeting	Seine 4
15:00 – 17:30	Technical Activities Committee (TAC) Meeting	Grenelle 3
16:00 – 17:30	New Communities WG Meeting	Seine 3
17:30 – 19:00	GNF – International Space Exploration: Report on ISEF2 and Beyond	Seine (5, 6, 7, 8 & 9)
19:10 – 19:30	GNF – Space Ops – Presentation & Signature of Cooperation Agreement	Seine (5, 6, 7, 8 & 9)
19:40 – 20:00	GNF – Caelus Partners Presentation	Seine (5, 6, 7, 8 & 9)
20:00 – 23:00	IAF Cocktail Reception	Grenelle (G1, G2 & G3) & Eiffel
Thursday 29 March 2018		
08:00 – 10:00	IPC General Meeting & IAF Distinguished Service Award Ceremony	All Seine
10:00 – 13:00	IAC 2018 Abstract Selection	All Seine
10:00 – 13:00	IAF Bureau Meeting Part2	Roof top
13:00 – 14:00	IAF President Press Conference	Eiffel

INTERNATIONAL PLATFORM FOR DIVERSITY AND EQUALITY IN ASTRONAUTICS

3G GEOGRAPHY • GENERATION • GENDER

Spring Meetings 2018

IAF IDEA "3G" Diversity Day

during

2018 IAF Spring Meetings in Paris

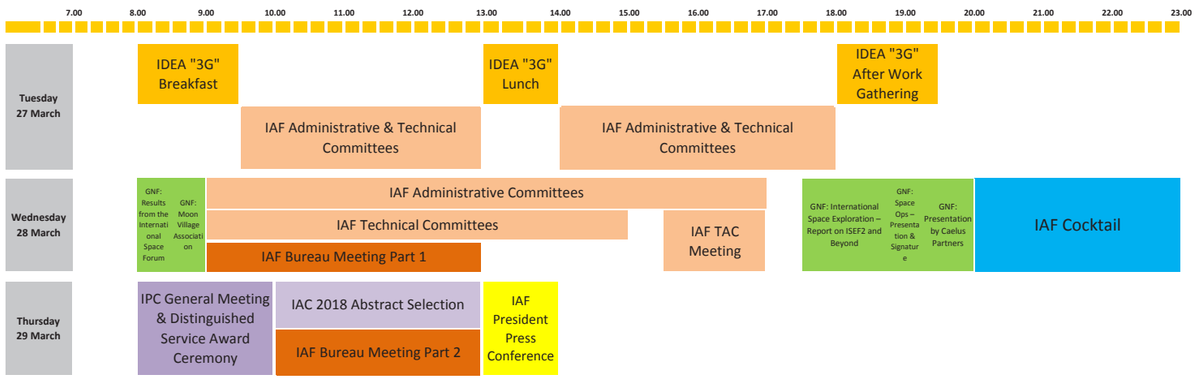
(Tuesday 27 March 2018)

Background:

In continuation of the IAF initiative to foster the principle of "3G" Diversity in the space sector, the IAF "3G" IDEA platform will be again activated during the IAF Spring Meetings (27 – 29/03/2018) in Paris.

Tuesday, 27 March 2018 will again be declared as **IAF IDEA "3G" Diversity Day** with 3 main key events focusing on different diversity aspects and using valuable networking opportunities to bring together a global IAF community, including IPC members, IAF committee members and IAF Member representatives. The IAF IDEA "3G" Diversity Day will be moderated by the IAF VP for Global Membership Development and Diversity Initiatives, Mary Snitch, and will also feature an introductory speech by the IAF President, Dr. Jean-Yves Le Gall.

Overall Schedule:



Detailed Planning:

The IAF IDEA "3G" Diversity Day (27 March 2018) will feature three main events:

- IDEA Breakfast (8:00 – 9:30)
- IDEA Lunch (13:00 – 14:00)
- IDEA After Work Gathering (18:00 – 19:30)

IDEA Breakfast:

8:00 – 9:30 an IDEA Breakfast will focus on **Education and Career Development**, offer a keynote speech by **Douglas Nakashima**, Acting Director of the Division of Science Policy and Capacity-Building within the Natural Sciences Sector of UNESCO and provide a platform for the IAF community to share, discuss and elaborate with prominent space leaders from IAF member organizations issues of career development in the space sector.

For this event the IAF will be supported by **SGAC** and the **IAF young generation community**.

SPACE GENERATION ADVISORY COUNCIL

The event will be opened with a welcome by the IAF President, **Jean-Yves Le Gall** and moderated by the IAF VP for Diversity Initiatives, **Mary Snitch**. After a Keynote on Education, Roundtable discussions will follow, where prominent space leaders will be invited to mentor groups of young generation delegates (selected by SGAC and the IAF WD/YPP Committee) on career development issues. The conclusions of these discussions will be shortly presented by each group.

The event will close with the signature ceremony of a new partnership agreement between IAF and SGAC. This ceremony will be introduced and moderated by the IAF VP for Education and Workforce Development, **Chris Welch**.

Coffee/tea and viennoiserie will be offered.

Programme:

Welcome (8:00 – 8:05):

Jean-Yves Le Gall *(IAF President)*

Introduction (8:05 – 8:10):

Mary Snitch *(IAF Vice President for Diversity Initiatives)*

Keynote on Education (8:10 – 8:25):

Douglas Nakashima *(Acting Director Of the Division of Science Policy and Capacity-Building with-in the Natural Sciences Sector of UNESCO)*

Roundtable Discussions (8:25 – 9:00):

4 Roundtables with 2 prominent space leaders each shall discuss with young generation delegates (selected by SGAC for 2 tables and the IAF WD/YPP Committee for 2 tables) career development issues. This shall provide valuable mentoring for the young generation delegates while focusing on the following questions:

- What are the challenges and opportunities for career development in different parts of the global space community?
- What is the best way to engage with the global space community in pursuit of a successful space career?
- What is the best way to adapt to the continuously changing space sector?
- What is the best way to become an effective leader/influencer in the global space com-munity?

Invited Speakers:

Table 1

Jean-Yves Le Gall *(CNES President; IAF President)*

Elena Grifoni *(ESA, Head of Director's General Cabinet*)

Table 2

Jan Woerner *(ESA, Director General; IAF Vice President for Agency, Parlamentarian and Ministerial Relations)*

Rovani Sigamoney *(Programme Specialist in the Capacity-Building Section of the Natural Sciences Sector)*

Table 3

Sergey Krikalev *(ROSCOMOS, Director of Human Spaceflight; IAF Vice President for International Relations and Outreach)*

Chris Welch *(ISU, Professor; IAF Vice President for Education and Workforce Development)*

Table 4

Roberto Battiston *(ASI President; former IAF Vice President for Science and Academic Relations)*

Mary Snitch *(Lockheed Martin, Senior Manager; IAF Vice President for Global Membership Development and Diversity Initiatives))*

Presentation of conclusions (3 min per table) (9:00 – 9:15)

Signature ceremony of IAF – SGAC Partnership Agreement (9:15 – 9:25)

Moderated by IAF VP for Education and Workforce Development, ***Chris Welch***

Closing Remarks by Moderator (9:25 – 9:30)

IDEA Lunch:

13:00 – 14:00 an IDEA Lunch will focus on **Mentoring and Sponsorship**. IAF VP for Diversity Initiatives, **Mary Snitch**, will introduce an invited speaker - **Allyson Zimmermann**, Executive Director of **Catalyst Europe**, a global organisation supporting organisations in creating inclusive workplaces where women and all talent can advance. She will focus on the importance of the right relationships in the world of career planning and advancement, and building up strategic networks, whether informal or formal. She will outline the difference between a coach, mentor, and sponsor in the process of analyzing and growing strategic relationships. This session shall showcase the unique benefits of mentoring and sponsorship relationships, provide guidance on how to build strategic sponsors and how to be a sponsor, create a goal/accountability plan, and take these skills into long term career goals.

Allyson Zimmermann *(Catalyst Europe, Executive Director)*

IDEA After Work Gathering:

After completion of committee meetings at 18:00 all participants are invited to meet for an IDEA After Work Gathering, which is a networking event with a focus on geographical diversity.

Topic of this event will be **"Benefits & Challenges of a Geographically Diverse Workforce in Globally Acting Space Industry".**

Moderated by the IAF VP for Global Membership Development and Diversity Initiatives, **Mary Snitch**, a panel of invited prominent representatives of globally acting space industries shall discuss the benefits as well as challenges which global actors are facing with a geographically diverse workforce.

Invited Panellists:

The Boeing Company

Mark Mulqueen *(Boeing Director of Space, International Space Station Program Manager, Boeing)*

Lockheed Martin Corporation

Scott Fouse *(Vice President for Lockheed Martin Advanced Technology Center in Palo Alto, CA.)*

Airbus Defence & Space

TBD

Drinks (wine, beer, juices, water) and some finger-food will be offered.

2018 IAF DISTINGUISHED SERVICE AWARD RECIPIENTS

	Ariane Cornell	For outstanding services to the Federation by being part of the Reflection Team that conducted the overall review of the IAF Constitution which led to its amendment and new Bylaws adopted at the Toronto IAC in 2014.
	Christina Giannopapa	For outstanding services to the Federation by being part of the Reflection Team that conducted the overall review of the IAF Constitution which led to its amendment and new Bylaws adopted at the Toronto IAC in 2014.
	Filippo Graziani	For his valuable participation and outstanding contribution to Astrodynamics Committee and to IAC for several decades.
	Ingemar Skoog	For half a century of dedicated work for IAF and participating in most facets of its activities.

	Joo-Jin Lee	In recognition of Dr. Lee's significant contributions to the development of the International Astronautical Federation's outreach, engagement, and impact in nations with emerging economies, for his successful leadership in conceiving and executing an exceptional IAC in Daejeon, Korea, and for his decades of work in peaceful exploration of space, including as the President of the Korean Aerospace Research Institute.
	Naomi Mathers	For distinguished service to the IAF and its membership since 2010 in particular in relation to space education initiatives, outreach and for her work in ensuring the success of the International Astronautical Congresses as IPC Co-Chair
	Masami Onoda	For her outstanding and dedicated services to support the IAF Presidency and Bureau during the period of 2012-2016, especially for drafting the President's Agenda that led to the historic amendment of the IAF Constitution in 2014, and for being part of the core team drafting and implementing the amended Constitution and new Bylaws.
	Rosa Maria Ramirez de Arellano y Haro	For outstanding services to the Federation by being part of the Reflection Team that conducted the overall review of the IAF Constitution which led to its amendment and new Bylaws adopted at the Toronto IAC in 2014.
	Pierre Ranzoli	For his outstanding services to IAF, his continuous support for chairing the IAF Earth Observation Committee, and his unwavering commitment to innovation and technology development.
	Christian Sallaberger	For his exceptional leadership as IAF Space Exploration Committee Chair and IPC Co-Chair of the Global Space Exploration Conference 2017 and for his outstanding contributions to the progress of astronautics and the Federation for more than 15 years.
	Klaus Schilling	For his outstanding services to IAF, his continuous support to the Space Systems Committee, and to various Reseach and Development Activities.
	Kai-Uwe Schrogl	For outstanding services to the Federation as Chair of the Reflection Team that conducted an overall review of the IAF Constitution which led to its amendment and new Bylaws adopted at the Toronto IAC in 2014, and for leading the transition to the new scheme.
	Michael Simpson	For his many years of commitment and contribution to the Commercial Spaceflight Safety, GEOSS, and Space Security Committees of the International Astronautical Federation (IAF) and for his strong support of the IAF's ongoing outreach to students and young professionals including the ongoing collaboration with the Student Generation Advisory Council.
	Lesly Jane Smith	For outstanding services to the Federation by being part of the Reflection Team that conducted the overall review of the IAF Constitution which led to its amendment and new Bylaws adopted at the Toronto IAC in 2014.

GLAC 2018: Registration is now open!

The Global Space Applications Conference #GLAC2018 will be held from 21 - 23 May 2018 in Montevideo, Uruguay. This is part of the IAF's 'Global Series' conferences, and follows the highly successful GLEX 2017 Conference in Beijing, China.

The conference is being organized with the Centro de Investigacion y Difuson Aeronautico-Espacial (CIDA-E), a member of the IAF since 1985 and one of nine IAF members from South America.

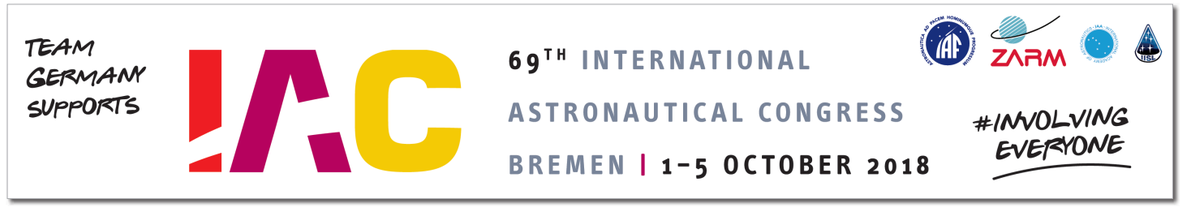
This conference will be a follow up on GLAC 2014 which was organized in Paris, France. During the 4 years since the previous GLAC, the international satellite-based applications community will have significantly moved forward with their respective planning and developments and it is therefore timely to take stock of the progresses and undertake an outlook to the future of space applications on a global scale, with a specific focus also on developing space nations, such as Uruguay.

GLAC 2018 is designed to encouraging the sharing of programmatic, technical and policy information, as well as collaborative solutions, challenges, lessons learnt, and paths forward among all nations with the desire to improve space applications and their usage.

The GLAC 2018 will provide an excellent opportunity to review the state of the art of satellite-based applications, with a focus on:

- Farming and fishing
- Integrated risk management
- Climate
- Natural Resources
- Mapping
- Legal Aspects (Legal Regulations)

Registration is excellent value, and you can sign up easily at **www.glac2018.org**



IAC 2018

The IAF went to Bremen for the IAC 2018 Site Visit. Important requirements were clarified for the IAC and agreed milestones for the run-up to IAC 2018. The IAC 2018 is ready!

The Call for Plenaries for IAC 2018 was closed on 19 January 2018 and many interesting proposals have been received. The IAF is pleased to see the continuous attention and support shown by its members and committees.

The Call for Papers for IAC 2018 is also officially closed. We received a record number of submissions! More than **4300 Abstracts** from the record number of **90 countries** this year, and we would like to take this opportunity to thank everyone for their interesting contributions. We look forward to using as many of these abstracts as possible to piece together the best IAC Technical Programme yet. The International Programme Committee will review all the submissions, and speakers will be notified regarding their status on 25 April 2018.

The IAC 2018 IAC Technical Programme will include for the first time Special Sessions. Their objective is to provide a complementary flavor and novel perspectives to the regular Technical Sessions. The format of Special Sessions is flexible – it allows different formats to motivate the exchange of opinions among speakers and participants. The list of approved Special Sessions will be announced on 9 April.

IAC TV returns in 2018 to Highlight Innovations in Astronautical Engineering

We are excited to announce the return of IAC TV at the International Astronautical Congress in Bremen, Germany. IAC TV brings a thrilling element to the conference, using video to enhance your experience throughout this world leading event. It serves as a unique platform to highlight the most important issues and aspects of human endeavours in space.

Partnering with award winning international film and broadcasting company, WebsEdge, IAC TV will produce a daily episodes throughout the conference. Each episode will feature:

- Conference News: Onsite, IAC TV will film interviews, capture session highlights and hear delegates' insights and reactions from around the conference.
- In-Depth Reports: Five-minute documentary style films from universities, institutions, and organizations looking to highlight programs, case studies and ongoing initiatives that are making a difference.

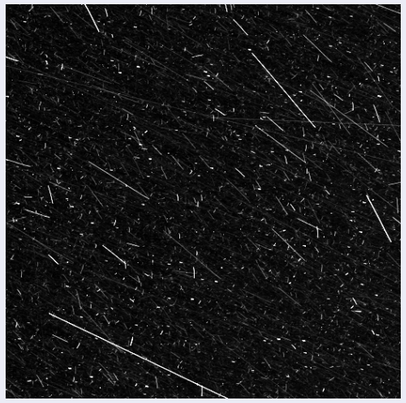
You will be able to view IAC TV in a host of different ways. At the conference itself, IAC TV will be on screens around the venue as well as available in selected hotel rooms. We will also make the program content available on the event website, on YouTube, as well as across social media channels.

As part of IAC TV there is unique opportunity for certain organizations to feature their work and research in case study films, to be included in the IAC TV 2018 program. There is a cost to be featured on these pre-recorded slots and only a limited number of organization will be able to take part in IAC TV 2018. If you are interested in learning more about the in-depth reports, please contact: Tom Sapsted - tom@websedge.com

In 2017 IAC TV featured case study films from:

- University of Southern California, Department of Astronautical Engineering and Space Engineering Research Center
  http://www.websedge.com/videos/iac_tv/#/training_the_next_generation_of_space_pioneers
- UNSW Canberra Space Research
  http://www.websedge.com/videos/iac_tv/#/innovating_at_australia_s_premier_space_capability
- Morehead State University - Space Science Center
  http://www.websedge.com/videos/iac_tv/#/playing_a_leading_role_in_the_nanosat_revolution
- MIT AeroAstro - Space Systems Laboratory
  http://www.websedge.com/videos/iac_tv/#/building_systems_for_space_from_design_to_operation
- Commonwealth Scientific and Industrial Research Organisation
  http://www.websedge.com/videos/iac_tv/#/taking_the_lead_in_autralia_s_space_industry
- EUMETSAT http://www.websedge.com/videos/iac_tv/#/eumesat

#ThisDayInSpace



When was the first time the birth of a galaxy was observed? When did we understand that all does not revolve around the earth? Who played golf on the moon? Who predicted gravitational waves? How many days Valeri Polyakov spent on Mir? When did Rosetta began its space probe mission? What is a Kepler telescope? Who discovered Uranus? What is the name of the first American to board on a Russian rocket? On which day was the first space walk?

Find out on the new #This DayInSpace IAF videos celebrating the history of Space:
http://www.iafastro.org/publications/media-center/this-day-in-space/

IAF Graphic Recording

The IAF partners with a team of professional graphic recorders who live draw IAF events and, by combining the skills of a note-taker and an artist, visually represent information communicated orally.

This powerful technique is increasingly becoming popular as it captures discussions and ideas into drawings.

Graphic Recording delivers an extra, essential visual element with the benefits of bringing events to life, and creating a visual record.

These boards synthesis the essential elements of IAF events into a combination of words and images.

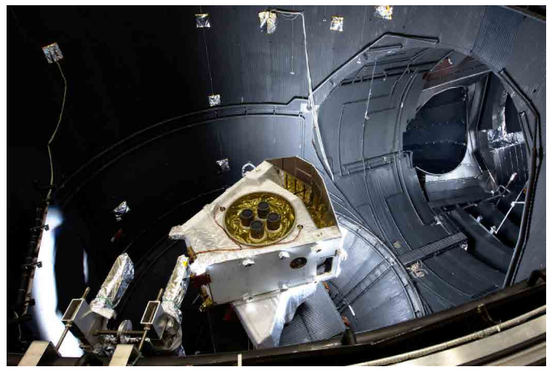
For more info visit http://www.iafastro.org/publications/media-center/iaf-graphic-recording/

NEWS!

ets european test services

BepiColombo successfully passes last environmental test

14 December 2017



BepiColombo MTM PFM in the LSS (copyright Thales Alenia Space Italy)

BepiColombo is now heading for their departure from ETS/ESTEC and transport to Kourou after the Mercury Transfer Module (MTM) successfully passed the thermal vacuum test in ESA's Large Space Simulator (LSS). During this test the MTM was not only exposed to 11000W/m2 to simulate the sun intensity close to Mercury but the four thrusters were also functionally verified by means of Xenon gas release up to 4mg/s. For this thrusters verification the LSS has been upgraded with additional cryogenic pumps to assure high vacuum during the Xenon release.

In the coming weeks the team from Thales Alenia Space Italy, Airbus and JAXA will be performing final leak tests and functional tests before packing their equipment to head to Kourou.

BepiColombo is a joint mission between ESA and the Japan Aerospace Exploration Agency (JAXA), executed under ESA leadership.

Shooting for the stars: successful test of new 2.2-kN student-built engine

On December 2, 2017, the student run Liquid Propulsion Lab (LPL), of the University of Southern California (USC) Viterbi School of Engineering's Department of Astronautical Engineering, had a successful first static fire of their prototype rocket engine.

The 2.2-kN thrust liquid propulsion engine, named "Blue Steel," and its versatile test stand "Hydra" were designed and built by students pursuing master of science degree in astronautical engineering. The engine prototype operates on kerosene as the fuel and gaseous oxygen as the oxidizer. The flight version of the engine will use liquid oxygen. More than 25 students participated in the test firing in California's Mojave Dessert. In Spring, LPL plans to develop and test USC's first ever 3D printed liquid-propellant rocket engine.

Student development of liquid-rocket engines by LPL and solid-propellant rockets by another group in the department provides hands-on experience for USC astronautical engineering students in space technology.

Flinders UNIVERSITY

From launching rockets to playground rockets in Australia

Dr Alice Gorman from Flinders University was delighted to win the prestigious Bragg UNSW Prize for Science Writing in November 2017, for her essay 'Trace Fossils: the Silence of Ediacara, the shadow of uranium'. In this essay, Gorman looks at the landscape of South Australia from the time of the Ediacaran fossils six million years ago, through to rocket launching at Woomera and nuclear testing at Maralinga in the 1960s, to Aboriginal culture in the present day. The essay was originally published by The Griffith Review and can be read at The Conversation: https://theconversation.com/friday-essay-trace-fossils-the-silence-of-ediacara-the-shadow-of-uranium-72058.Gorman's latest article (in Defining the Fringe of Contemporary Australian Archaeology, ed Jordan and Bosco, Cambridge Scholars Publishing 2018 http://www.cambridgescholars.com/defining-the-fringe-of-contemporary-australian-archaeology) looks at the phenomenon of rocket-shaped playground equipment. Rocket parks took off in Australia after a town engineer from the Blue Mountains in NSW brought back plans from the US, and they soon spread across the country. New safety standards for playgrounds in the late 1970s meant that many rockets were dismantled. However, they play a large role in people's memories of childhood and are enjoying a new popularity.

Российская Академия Наук

Scientific forum with international participation dedicated to the centenary of academician O.G. Gazenko XVII Conference on space biology and aerospace medicine

The conference will be held from December 10 to 12, 2018 in the conference rooms of the Presidium of the Russian Academy of Sciences (Leninsky prospect 32A, Moscow)

Working languages - Russian, English

Oleg Geogrievich Gazenko /12.12.1918 - 17.11.2007/

O.G. Gazenko – lieutenant general of medical service, active member of the Russian Academy of Sciences, outstanding scholar and science manager, one of the founders of space biology and medicine, winner of numerous prestigious national and international prizes.

Plenary session

O.G. Gazenko's contribution to general physiology, space biology and physiology, aerospace medicine and international scientific cooperation

Topics of symposia and sections

- Motion sickness and spatial orientation
- Motor disorders
- Orthostatic instability
- Prevention of structural and functional disorders in organism
- Artificial gravity
- Gravitational cell biology
- Biological life support systems
- Human factor in aviation and space flights
- Analog studies
- Toxicological and microbiological safety of long-term stay in isolated environment

- Physiological effects of extreme physical factors
- Human protection in aviation and space flights
- Radiation safety

On-line registration, payment of the registration fee and more information on the conference will be available on conference site www.spacemedicine-2018.com or IBMP site www.imbp.ru starting from February 19, 2018.

Deadline for abstracts - June 8, 2018
Organizing committee points of contact

Logistics issues:

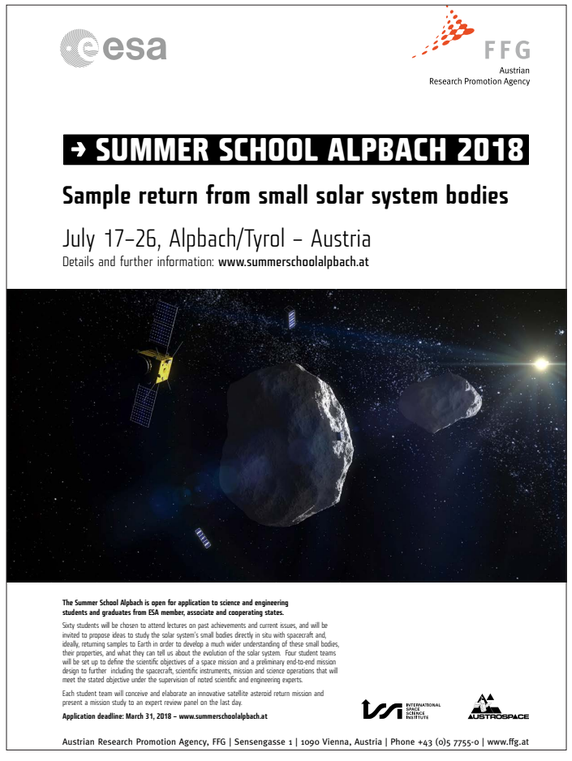
Romanov Aleksander N. (+7) 499 195 02 03
Ponomarev Sergei A. (+7) 499 195 65 26, (+7) 903 204 91 75;
e-mail: cd147@bk.ru

Highlights from the 2017 Student Program of the 68th IAC

The International Space Education Board (ISEB) and Space Education Outreach Committee (SEOC) worked together to promote a very successful 2017 Student Program and Educator Professional Development Workshop. This on-going collaboration between ISEB and SEOC provides an opportunity for expanded outreach to educators and students, as well as training, networking, and social activities that increase awareness of space, science, and local culture. The pictures tell a great story of learning and professional development, while also having fun. The nine member ISEB agencies are: Canadian Space Agency (CSA); European Space Agency (ESA); Japan Aerospace Exploration Agency (JAXA); National Aeronautics and Space Administration, NASA; Centre National d'Etudes Spatiales (CNES); Korea Aerospace Research Institute (KARI); South African National Space Agency (SANSA); Victorian Space Science Education Centre (VSSEC); and Mexican Space Agency (AEM). Approximately 60 ISEB students, 25 educators, and 600 local students participated in the associated activities.

Summer School Alpbach 2018 – Sample return from small solary system bodies July 17-26, 2018

Sixty European engineering and science students will be chosen to participate in the 42nd Summer School Alpbach. The topic is "Sample return from small solar system bodies". Students at the Alpbach Summer School 2018 will be informed about past achievements and current issues, and will be invited to propose ideas to study the solar system's small bodies directly in situ with spacecraft and, ideally, returning samples to earth in order to develop a much wider understanding of these small bodies, their properties, and what they can tell us about the evolution of the solar system. Over ten days students will attend stimulating lectures on various aspects of space science and engineering and will work intensely within smaller groups to define and design a space mission under the supervision of noted scientific and engineering experts within the field.



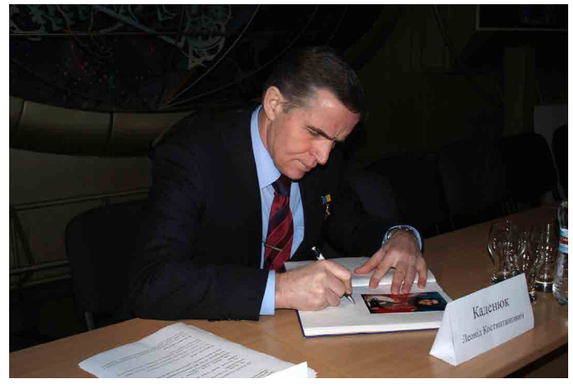
Each student team will conceive and elaborate an innovative satellite asteroid return mission and present a mission study to an expert review panel an all other teams, tutors and lecturers on the last day.

The Summer School Alpbach is open for application to students and graduates from ESA member, associate and cooperating states. 60 selected participants will be invited to attend.

Application Deadline: March 31, 2018
Online Application: www.summerschoolalpbach.at

The Summer School is organised by FFG and co-sponsored by ESA and the national space authorities of ESA member, associate and cooperating states. A traditional partner is the International Space Science Institute. It is also supported by Austrospace, the association of Austrian space industries and research institutions. EuroPlanet offers support for student grants.

In Commemoration of a Friend



The last day of January brought a shocking news. The first Ukrainian astronaut Leonid Kadeniuk suddenly died whilst engaged in his morning run in one of the city parks in Kiev.

In the recent years, Leonid Kadeniuk was the President of the Aerospace Society, published his book "Mission: Space" and collaborated with the S. Korolev Space Museum in Zhitomir. Over the course of time, the astronaut became a sincere friend to the museum and we truly appreciated that friendship and his involvement in our activities. He was as well an honorary guest and participant to many regional and city events. We will always remember him as a highly professional researcher astronaut, active promoter of space explorations, creative, decent and modest person. The memory of Leonid Kadeniuk will be kept in numerous photographs, documents, books, personal belongings, which are currently on display in the exhibition Space at the S.Korolev Space Museum and stored in the museum funds. The astronaut used to say: 'If a boy from a Bukovynian village was able to realize his dream then anybody is able to do the same. Human life must begin with a dream. A dream helps you overcome difficulties, directs, orders your activities and assists in achieving goals. ' Mourning...

The Project Mars Competition is Open!

Join NASA's Orion and Space Launch Systems teams and SciArt Exchange in visualizing humans venturing into deep space, to the Moon and beyond to Mars. Interested college students and early career professionals worldwide are invited to submit short films and graphic art about this mission, what astronauts may see, and their dreams for the future of exploration.

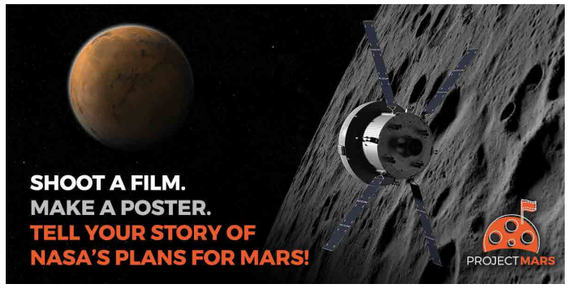
Entries will be judged by film and graphics industry professionals and NASA astronauts. Winning entries will be screened at an Opening Event at NASA visitor centers, NASA museum consortium members, micro cinemas, and other interested venues in Fall 2018. The top film will win $10,000, and the top poster will win $1500.

Entries are due August 31, 2018.

Visit www.ProjectMarsCompetition.org
for details & signup to receive more information!

Please share this email-able information with anyone interested. A printable poster is also available on the website.

Thank you!
The Project Mars Competition Organizers
www.SciArtExchange.org
info@SciArtExchange.net



H-SPACE 2018 conference in Budapest

The Hungarian Astronautical Society (MANT), together with the Budapest University of Technology and Economics, organised the 4th International Conference on Research, Technology and Education of Space (H-SPACE 2018) on February 15–16, 2018. A large fraction of more than 200 registered participants were students or young professionals below the age of 35 years. They listened to nearly 20 oral presentations and visited a dozen posters covering a broad variety of topics in space science, engineering and education. Selected examples are the results of the Cassini mission at Saturn, 3D printing in space, quantum communications, new Russian–Hungarian space developments, and Astro PI experiments on board the ISS by high school students. It was already announced at the meeting that the 5th conference in the annual H-SPACE series will take place in February 2019. The call for papers is expected to be issued in September 2018 on the website space.bme.hu.

CIDA-E

From 21 to 23 May it will be held in Montevideo, Uruguay, the GLAC 2018. It is the first time that a Global Conference takes place in Latin America and also the first time that the IAF organizes an event in Uruguay.

Taking into account the theme of the Conference, mainly concerning space applications in the agricultural sector - a sector which represents the majority of exports in Uruguay - companies and individuals linked to this area of activity will participate in the event. The Conference will offer participants the opportunity to discuss about the situation of the sector and its needs, while they will also learn about the latest advancements in the field. Other issues such as the integrated management of risks, climate, natural resources, cartography and legal aspects, will attract other sectors of activity as well.

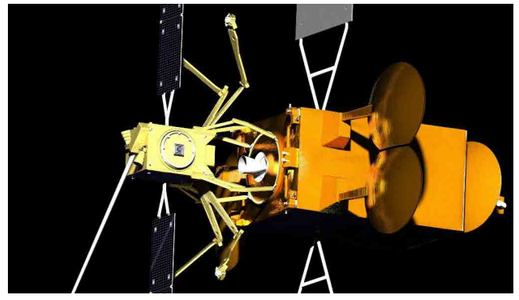
The program will include high-level conferences and round tables. There will be an IAF/SGAC Workshop, ensuring the participation of young students and professionals and also an exhibition.

The GLAC venue will be the Radisson Victoria Plaza Hotel, located in the heart of the city, which has all the necessary requirements for a meeting of this nature.

On February 26 registrations were opened, so we encourage all those interested in the topics to be treated in the Conference to join us. We hope to welcome you all in Montevideo!

GMV collaborates with Effective Space in the development and on-ground validation of the SPACE DRONE™ rendezvous and docking system

GMV has recently initiated a collaboration with Effective Space Solution Limited (https://effective.space/), a UK-based private company that plans to deploy and operate a fleet of small SPACE DRONE™ spacecraft for robotic logistical missions in space.
The two first SPACE DRONE™ spacecraft are being built under contract with a customer and expected to be launched by 2020.



GMV is in charge of supporting the development of the service mission with several activities; the first one is the execution of hardware- in-the-loop test campaigns in the GMV's platform-art© facility (https://www.gmv.com/en/Products/platform/).

That includes the verification of the Rendezvous and Docking (RvD) system, including the engineering models of sensors, on-board computers running the GNC (guidance, navigation, and control) software, and the docking arms system.

The first test campaign has been performed in December 2017 with the participation of Effective Space engineering team. The main focus has been the testing of the docking arms system prototype through state-of-the-art emulation of gravity-free dynamics conditions. Other three test campaigns are foreseen to be performed at GMV facility later this year and in 2019.

GMV has also started the development of one of the critical components of the SPACE DRONE™ RvD system, which is the image processing algorithm that will be used for detecting the customer's GEO host satellite and computing its position and attitude during the Rendezvous maneuver.

GMV finished the LUCID project after successful space robotics trials in the National Park of Teide

At the beginning of 2018, the technology multinational GMV carried out the final phase of rover trials under the GMV-led European Space Agency (ESA) project LUCID (LUnar scenario Concept validation and Demonstration).

LUCID aim was to evaluate the combination of necessary localization and situational awareness techniques and tools for operating a Lunar Prospector Rover efficiently and safely within the environmental constraints of the lunar polar region. GMV has integrated system equipment and developed the rover's software.

From 2 to 16 October LUCID was running over the moon-like landscapes of *Minas de San José* in its last testing phase. Definitive sensor tests were being conducted at sunset, while also vetting navigation techniques to provide the rover operating team with the best possible information. Other capabilities under test and validation are locomotion, illumination and capture of rover images, a fundamental factor in Moon exploration missions.

This series of tests were crucial as the best way of validating the human-machine interaction, i.e., assessing whether all the information supplied under real conditions is enough for the operator's purposes and whether this information is offered in the best possible way. The trials were equally essential in terms of increasing reliability and maturity after subjection of the system to the most realistic conditions possible.

ILOA Galaxy Forum Hainan 2018: China

ILOA Galaxy Forum Hainan 2018: China themed *International Human Moon* Missions and Astronomy from the Moon will be held 4-7 December 2018 at the Hilton Wenchang on 'China's Hawaii' and southernmost province Hainan Island. To learn more, register or become a sponsor, visit www.bit.ly/GFH2018.

Keynote speakers include **Dr. Andy Aldrin**, Professor **Ziyuan Ouyang** and ILOA Director **Steve Durst**. The planned luncheon panel *"First Women on the Moon"* features **Soyeon Yi** and women Astronauts from Japan, China and USA. 100-200 participants are expected from international leading lunar scientists, engineers, space agency experts, space community professionals, entrepreneurs and enthusiasts. The principal objective of Galaxy Forum Hainan is to help realize Humans on the Moon as soon as reasonably possible.

ILOA sponsors Galaxy Forums worldwide to advance Galaxy 21st Century science, education, enterprise. There have been about 80 Galaxy Forums, with over 300 presentations, held in 26 locations.

The **International Lunar Observatory** ILO-1 flagship observatory NET 2020, human service mission, and ongoing Chang'e-3 LUT collaboration are being conducted with support from spacecraft provider Moon Express of USA, primary instrument contractor Canadensys Aerospace of Canada, National Astronomical Observatories of China, India Space Research Organization, the newly formed Southeast Asia Principal Operating Partnership, and others.

The SpaceLand Center

As presented by the President of the Republic of Mauritius at the United Nations in November 2017 (https://youtu.be/2RthuFMcdfg), SpaceLand is centralizing in Mauritius functions and facilities such as large Mars analogs, drop towers and neutral buoyancy tanks for underwater microgravity tests, to name a few within an un-precedented Center of Excellence for Microgravity and Low-Gravity, named "SpaceLand Center."

The Center is being built to look like a realistic human settlement on the Red Planet and will be open to the general public at any age: this approach follows on the results achieved by having qualified underwater and flown several record-setting individuals from 11 to 93 years of age, even with physical disabilities (setting several world records in such fields) with state-of-the-art experiments on board SpaceLand microgravity and Mars-gravity research and educational flight missions from the year 2002 onward (e.g. http://simplediscoveries.com/spaceland-opening-microgravity-to-all/).

Such a Mars-like immersive experience will facilitate a new Space-economy thrive in Mauritius, with ad-hoc designed ground and underwater laboratories, facilities and environments also supporting innovative space-themed mass-media productions for public outreach and science education programs.

Such targets will be achieved also thanks to the specific expertise of SpaceLand's architects and engineers managed by the former Head of Design of the 2006 Winter Olympics' Broadcasting Organization, Architect Celeste Petraroli, with the supervision of former ESA Technical Manager Eng. Doct. Carlo Viberti (holding a more than 500 zero-gravity R&D test sessions record and candidated in 2010 by the Head of the Italian Space Agency as first sub-orbital astronaut/flight engineer for upcoming sub-orbital research flights).

The SpaceLand Center will also facilitate hand-on education of international students and people in the above domains, including children, elderly and people with disabilities, at the same time preparing youngsters, scientists, professionals and industry for a large variety of multi-disciplinary Moon and Mars-gravity STEM projects; labs and analog enviroments will help conceive, engineer, test and qualify a wide range of research apparatus, technological prototypes, hardware/software experimental systems and methodologies in particular for Moon and Mars surface exploration missions, including spin-off and fall-back applications for everyday's life on the Earth.

Further info on www.SpaceLand.it

Free Webinar: How To Meet Future Market Demand By Reducing Your Satellite Production Time

SPACE TECH EXPO USA

Designing, building and testing satellites and spacecraft takes time. In some cases, the process from conception to launch can take a couple of years, however the industry is rapidly changing. The successful test flight of SpaceX's Falcon Heavy as well as significant advancements such as Rocket Lab's Electron second flight, will widen the launch bottleneck, allowing an increased number of satellites to be launched imminently.

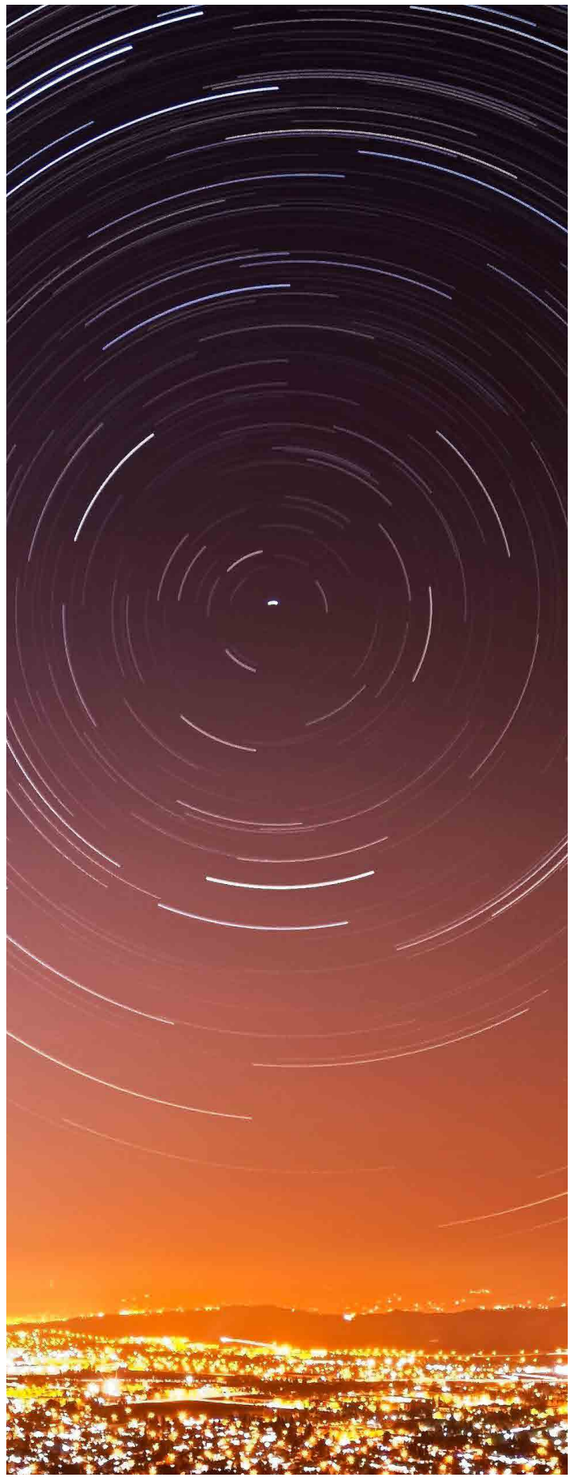
With the US Government's need to increase commercial and government collaboration on satellites, and the commercial operators looking to reduce their satellite production cycles to as little as 18 months, manufacturers are considering automation of specific manufacturing processes as well as the implementation of standardized components.

Join us on Wednesday March 21, 2018, 9:00am PDT (view in your time zone) to hear what these commercial organizations are planning to implement to help reduce their satellite production time.

Bringing together satellite industry experts from RUAG Space, Boeing Defense, Space & Security and Tempo Automation, this interactive webinar will discuss issues including:

- How can automation technologies be applied across the satellite manufacturing industry and how will they challenge and change the way we manufacture customized spacecraft
- Which innovative tools have shown that they enhance a faster manufacturing cycle process
- How will in-space manufacturing change the approach to spacecraft design and manufacturing

This webinar will introduce some of the issues to be discussed in detail at Space Tech Expo (May 22 - 24, 2018, Pasadena, CA).



Interview with Victoria Alonsopérez

GLAC 2018 IPC Co-Chairs , Special Advisor to IAF President (Next Generation), International Astronautical Federation (IAF), Founder of Chipsafer

GLAC 2018 Global Space Applications Conference

Victoria is an Electronics, Telecommunication, and Electrical Engineer, entrepreneur, and inventor. In 2012 she invented Chipsafer, a patented platform that can track cattle remotely and autonomously. Thanks to Chipsafer in 2012 she was the winner of the International Telecommunications Union Young Innovators Competition and in 2013 she won the Best Young Inventor Award from the World Intellectual Property Organization (WIPO). In 2014 the Inter-American Development Bank selected Chipsafer as the Most Innovative Startup of Latin America and the Caribbean, and the MIT Technology Review selected her as the Innovator of the Year - Argentina & Uruguay. In 2015 Chipsafer got second prize in Chivas Regal Global Competition The Venture and the BBC selected her as one of the 30 female entrepreneurs under 30.

She has also been Chair of Space Generation Advisory Council from 2014 to 2016, she was part of the Board of the Space Foundation from 2015 to 2017, in 2016 the IAF awarded me the Young Space Leader Award and she is currently Special Advisor to the IAF President.

1. GLAC 2018 will provide a platform to make countries aware of the benefits of space applications for their industries and society at large. How can space applications help Uruguay and the countries of the region?

Uruguay and the countries of the region are heavily dependent on farming and agriculture. Space application are key to improve the productivity and to help farmers and governments make better decisions with actionable information.

2. GLAC 2018 will be a follow up on GLAC 2014 which was organised in Paris, France. During these 4 years, the international satellite-based applications community has significantly moved forward with their respective planning and developments. Can you outline some of the progresses been made?

The amount of imagery available and accessible keeps constantly increasing. Also, many startups have been working on small satellite applications and generating data from Space. Lots of new opportunities are appearing and consumers are realizing of the value of space applications. There are many activities that nowadays depend completely on space applications such as GNSS or satellite imagery. .

3. What is the future of space applications on a global scale and on developing space nations, such as Uruguay?

Space applications are very important for developing countries, not only to help their industries but also for disaster management. Having real time information from space can make a very big difference.

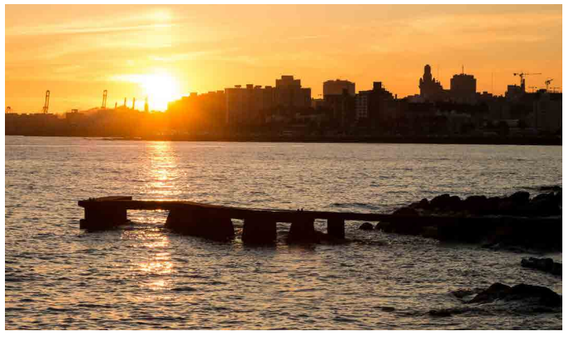
4. What does it mean for Uruguay to host an IAF Global Conference?

For Uruguay it is a very important event since there will be experts from all over the world coming and networking with local experts. We expect many collaborations to start after the event.

There will also be an event for the younger generation and by bringing the space community to Uruguay we expect to foster the interest of students and young professionals in space careers.

5. Why should the IAF Community attend GLAC 2018?

GLAC will be a great event to network and create business opportunities. Because of its landscape and industries, Latin America can benefit from space applications and there are many opportunities for companies o provide their services. This event will certainly positively impact the region.



Interview with Roberta Mugellesi-Dow

GLAC 2018 IPC Co-Chairs , Chair of the Committee on Integrated Applications, International Astronautical Federation (IAF), Integrated Applications Manager, European Space Agency (ESA)

Roberta Mugellesi Dow is Integrated Applications Manager in the Directorate of Telecommunications and Integrated Applications of the European Space Agency. She holds a Doctor Degree in Applied Mathematics from the University of Pisa, Italy, and a Master in Business Administration from the Schiller International University of Heidelberg, Germany. Before joining current position, she led orbit and manoeuvre operations for several ESA satellites during different phases of the mission. In the current position, she is working on a varied range of Business Applications projects

1. GLAC 2018 will provide a platform to make countries aware of the benefits of space applications for their industries and society at large. How can space applications help Uruguay and the countries of the region?

Space based data have the enormous advantage of enabling services which guarantee a wide coverage and a frequent revisit time of the area of interest . Such features are particularly relevant for certain area of applications which are particularly important in Uruguay, just to mention a few: agriculture and fishing, mitigation actions for natural disaster and related post-disaster damage assessment. The other beauty of space applications is that is particularly suitable for industries (including also micro and small enterprises) which are willing to explore new sectors with innovative technologies with a limited investment and in a relatively short time (which is very different from traditional space manufacturing business which requires huge investment and several years for design and project implementation).

2. GLAC 2018 will be a follow up on GLAC 2014 which was organised in Paris, France. During these 4 years, the international satellite-based applications community has significantly moved forward with their respective planning and developments. Can you outline some of the progresses been made?

In the last 4 years, the main boost of space applications has been given by the launch and operation of the Copernicus Constellation that has made available, almost every day, and for the entire globe, a huge amount of data allowing services which were not possible before and drastically improved performances of services which were already available. The revolution occurred in all sectors: infrastructure, transport, farming, etc.

Another winning aspect is that the data of the Copernicus Constellation are freely available and this aspect is a big incentive for companies which are newcomer of the space sector and would like to explore new trends.

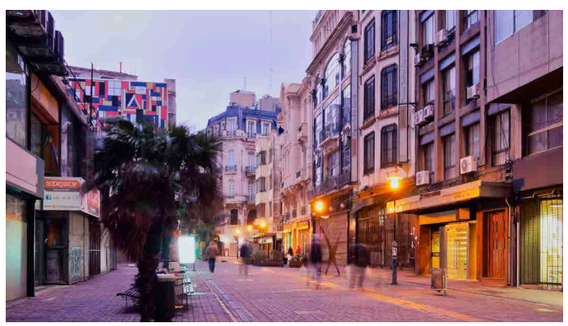
The other big change has been in the advent of new players (e.g. SpaceX, Planetlabs, OneWeb) which have heavily invested in the development and operation of megaconstellation. Such technology have increased the portfolio of space applications.

3. What does it mean for Uruguay to host an IAF Global Conference?

IAF Global Conference is an important opportunity for a Country like Uruguay to show, at international level, its commitment in supporting the development of space applications. Hosting an event such as IAF Global Conference testifies that Uruguay is not alone in this mission but it is supported by other space agencies, such as the European one. The result of this type of collaboration, is a mutual exchange of experience, expertise and network.

4. Why should the IAF Community attend GLAC 2018?

Because the community will have the unique opportunity to be informed on the latest developments, at international level, in the space application domain. Moreover, the program of the conference has been built in such a way to offer enough time to networking and exchange ideas.



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Be part of the conversation on @iafastro

Connecting @ll Space People

The next newsletter will be issued in May 2018