



President's Welcome



Dear colleagues,

Welcome to the March 2015 IAF newsletter. As it is the first of this year, I would like to take the opportunity to wish you all a happy 2015. I am greatly looking forward to another successful year of collaboration, and using our space expertise to provide inspiration and benefits to the wider community.

This edition will give you a complete calendar of the Federation's activities over the coming months. In two weeks we will convene in Paris for the IAF Spring Meetings, including IAF Committee Meetings, IPC Paper Selection, Bureau

Meeting and the conviviality of the GNF and cocktail. We will then meet in June at the majestic Munich Residence Palace, Germany, for this year's Global Series Conference on Space Innovation (GLIC 2015). This promises to be an outstanding high-level event, addressing technology transfer and innovation in the space sector. In October you are invited to attend the 66th IAC – returning to Israel 21 years after Jerusalem hosted the 45th Congress. We look forward to exploring how Space is The Gateway for Mankind's Future.

I hope you saved the dates, best wishes and see you soon,

Kiyoshi Higuchi

President



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MEMBERS' CORNER

INTERVIEW

with Mr. Menachem Kidron, Director General, Israel Space Agency (ISA)

RECENT PUBLICATIONS:

- GLIC 2015 Brochure
- IAC 2015 Brochure

IMPORTANT DEADLINES:

- Deadline to get an early registration rate for GLIC 2015 – **30 April 2015**
- Deadline to get an early registration rate at the IAC 2015 – **15 June 2015**



SPRING MEETINGS 2015

The annual IAF Spring Meetings are starting in 2 weeks and will take place from 24 - 26 March at the CAP-15 Conference Centre in Paris. The IAF hopes to see many of you there for a productive week. The meetings allow the IAF's network of scientific and technical experts to get together and organize key aspects of the upcoming IAC programme. Administrative and Technical Committees meet, and the International Program Committee selects the abstracts to be presented during the 2015 IAC.

Additionally, the Spring Meetings also feature the IAF Global Networking Forum (GNF). The GNF's specialist thematic sessions promote partnerships and cooperation in the space community, while also sharing knowledge, raising awareness and inspiring the workforce of tomorrow. This year's GNF will be on missions to Comets and Asteroids. There will also be the IAF Bureau meeting to discuss IAF policy, activities, finance.

And don't forget the IAF Cocktail Wednesday 25 at 8pm!

[Click here to see the complete Spring Meeting Schedule](#)



GLIC 2015

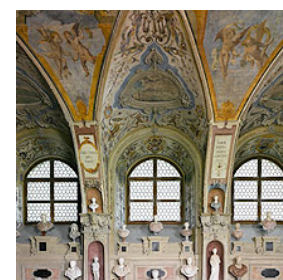


A highlight of the Global Space Innovation Conference (GLIC) from 23 – 25 June in Munich Residence Palace, Germany. GLIC 2015 will address the issue of how government programs can spur entrepreneurial action. GLIC 2015 is organised by the IAF, the [European Space Agency \(ESA\)](#), the [German Aerospace Center \(DLR\)](#), and the [Bavarian Ministry of Economic Affairs and Media, Energy and Technology](#).

This high-level forum on space innovation will provide great ideas for space innovations of the future. Please do consult the draft programme [here](#). The conference will feature a CTO conversation to develop cross-sector business strategies and public policy recommendations; this is part of Lockheed Martin's commitment to technological innovation as the key driver of global productivity. Key Note speeches by the co-organisers will be addressed. There will also be a 'SPACE UP' unconference where participants decide the topics, schedule and structure of the event.

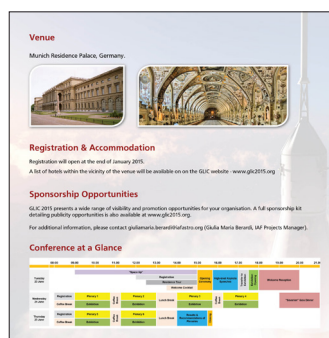
GLIC 2015 is a high-level conference featuring six thematic plenary panel sessions:

- Panel 1. The View From Entrepreneurs
- Panel 2. Socioeconomic Environment for Entrepreneurs
- Panel 3. Entrepreneurial Education and Training Panel
- Panel 4. Non-Financial Assistance for Venture Creation
- Panel 5. Financial Support for Venture Creation Panel
- Panel 6. Policies and Laws for Entrepreneurship





A list of the sponsorship and exhibition opportunities for GLIC 2015 is available [here](#). Sponsorship packages can include complimentary registration passes, advertisement in final programme, exhibit booth, VIP seating at opening ceremony, inclusion of promotional material distributed in participants' congress bags, etc. The IAF welcomes all sponsorship enquiries, and can customize a marketing package ideally suited to your organisation's needs. For specific sponsorship opportunities, please contact Giulia Maria Berardi (IAF Projects Manager), at giuliamaria.berardi@iafastro.org, +33 1 80 05 24 31



We would also like to remind you that registration is open; please go to <http://www.glic2015.org>

IAC 2015



The IAF went to Jerusalem for the IAC 2015 Site Visit. IAF, LOC, and PCO clarified important requirements for the IAC and agreed milestones for the run-up to IAC 2015. The IAC 2015 is ready! Check the [promo video](#) here and get an [early registration rate](#) here

The Call for Plenaries for IAC 2015 was closed on 31 January 2015 and many interesting proposals have been received. The IAF is pleased to see the continuous attention and support shown by its members and committees. In the past weeks the IAF International Programme Committee Steering Group led by its co-chairs, Igal Patel and Sandra Ramirez, has already done the evaluation of all proposals and the final selection for the Plenary Programme will be announced at the IAF Spring Meetings.



Check for more news on our Social Media



For the IAC 2015 in Jerusalem, the Plenary Programme is anticipated to be composed of 7 Plenary Events, 2 Highlight Lectures and 2 Late Breaking News Events. Few modifications to the numbers of Highlight Lectures and Late Breaking News could still occur. The Call for Papers for IAC 2015 is officially closed. We received over 2600 submissions from 65 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 we expect to notify speakers regarding their status in mid-April.

EMERGING SPACE LEADERS GRANT PROGRAMME & YOUNG SPACE LEADERS RECOGNITION PROGRAMME



The IAF received 18 nominations for the Young Space Leaders Recognition Programme dedicated to students and young professionals. The selection will take place during the IAF Spring Meetings and will be announced in April 2015 on our website. For the Emerging Space Leaders Grant Programme, the IAF received 113 applications from 40 countries all over the world. The distribution is 49 young professionals (43%) and 64 students (57%). Results will be available on April 2015 on our website.

Few comments from the 2014 IAC Emerging Space Leaders Grant Recipients:

"I discovered many areas of research and became aware of some issues related to Space. I was stunned by the amount of knowledge I learnt every day during the IAC."

"Outstanding!! My first IAC was one of the best experiences I ever had."

"IAC was really a "Big Bang." There was a tremendous amount of preparation involved but I also felt really fortunate to receive a full grant to present at a huge conference and meet all the relevant people in astronautics."

"My fellow ESL grant awardees are a fantastic group of people, and I am still in contact with many of them."

"A great experience to connect with professionals of different backgrounds or from different organisations."

"IAC2014 was incredible. It was the first time I have attended an international conference on such a massive scale. It was great to be a part of it and I look forward to attending again in the future."

"Overall, the experience was fantastic. Going in to the IAC for the first time I didn't know what to expect, however I quickly discovered the great value of this event once it started. In speaking of my experience to colleagues I strongly advocate that they should attend the IAC."

"The experience was excellent."

"The experience of the IAC was incredibly beneficial, as I was able to learn about areas of the space industry that I would otherwise have very little knowledge of, and most importantly, develop contacts from all over the world."

"I am very satisfied with the IAC and looking forward to go for the next event."

"I will comment that my experience in IAC was a unique experience!, for me was a new experience do my presentation in English and with an audience of all over the world, was the first trip out of South America and after this experience I have grown professionally, in academics, in the personal aspects, I believe that this life experience has left me many lessons and I think they are going to be helpful for all my life."



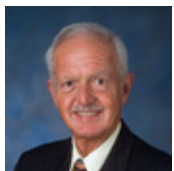
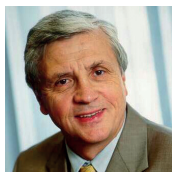


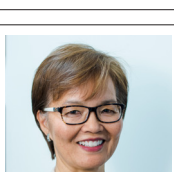

IAF DISTINGUISHED SERVICE AWARD 2015




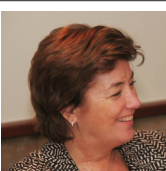


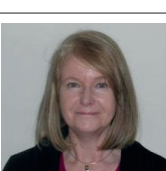

The IAF is pleased to announce the 15 Nominees to the Distinguished Service Award 2015.

Congratulations to: John-David Bartoe, Gerard Brachet, Sergei Chernikov, Heung-Sik Choi, Stacey Edgington, Aaron Janofsky, Heiner Klinkrad, Karlheinz Kreuzberg, Jean-Pierre Marec, Tanja Masson-Zwaan, Lewis Peach, Brent Smith, Chris Welch, Lyn Wigbels, Junhua Yang.



The IAF Distinguished Service Award is intended to reward active volunteers for their contributions to the progress of astronautics and the Federation. The Award comprises a distinctive pin and certificate presented at the IPC General Meeting during the Spring Meeting the following year. The recipient's registration fee for the International Astronautical Congress (IAC) will be reduced to 50% of the applicable fee for the year of induction. The awards ceremony will take place during the 2015 Spring Meetings – IPC General Meeting on 26 March 2015, 8:00 – 10:00, at CAP 15 Conference Center, 1-13 Quai de Grenelle, 75015 Paris.

	<p>John-David Bartoe</p> <p>John-David Bartoe brings to IAF since decades the best that collaborative space mission have brought to mankind - fostering the advancement of engineering and science by bringing up the right topics to the right people at the right time.</p>
	<p>Gerard Brachet</p> <p>For extraordinary dedication and commitment in service of the Federation in his function as Programme Committee Chairman for GLAC, as Vice President of IAF, as Chairman of the Committee for Liaison with International Organisations and Developing Nations (CLIODN), and for his tireless commitment in the organization of the annual UN-IAF Workshop.</p>
	<p>Sergei Chernikov</p> <p>Mr. Chernikov has acted as the United Nations focal point for the successful organization of the UN/IAF Workshops held in connection with the annual International Astronautical Congress (IAC) since 2003.</p>
	<p>Heung-Sik Choi</p> <p>Ambassador Heung-sik CHOI deserves to be received the IAF Distinguished Service Award in recognizing him to render great services and outstanding contributions to the advancement of the IAF as the 1st chairman of the IAF Asia-Pacific regional group, in appreciating his passionate and ingenious devotion to the development of IAC as the Secretary General of the IAC 2009 Daejeon organizing committee, and in highly esteeming for his invaluable services to the work of the IAF as volunteer in various activities of the Federation.</p>
	<p>Stacey Edgington</p> <p>Stacey Edgington has dedicated the past decade to the future of the space industry through her leadership in the International Astronautical Federation as the first Chairperson of the Workforce Development and the Young Professionals Programme Committee, member of the Space Education and Outreach Committee and the Space University Advisory Committee, and others, as well as a co-creator of several student and young professional awards and programmes in the Federation that have improved the lives and the careers of countless young people who are now and in the future will be leaders of the space community.</p>
	<p>Aaron Janofsky</p> <p>For his superb volunteer service supporting the International Astronautical Congress for over 20 years.</p>

	Heiner Klinkrad For the advancement of space debris research and mitigation measures in spaceflight for the safety of future space missions.
	Karlheinz Kreuzberg For extraordinary dedication and commitment in service of the Federation in his function as Vice President of IAF, as Special Advisor to the IAF President and IAF Bureau member, and for his tireless commitment in the organisation of the Heads of Agency Plenaries at the International Astronautical Congress (IAC) as well as the organisation and co-chairing of the International Meetings for Members of Parliament.
	Jean-Pierre Marec Jean-Pierre Marec acts an important part as volunteer inside the federation during 33 years, developing the astrodynamics committee which is one of the best technical committee and increasing the fame of IAF with the quality of the review Acta Astronautica.
	Tanja Masson-Zwaan For extraordinary dedication and commitment in service of the Federation in her function as President of the International Institute for Space Law (IISL), one of the Federation's closest partner organisation, and as member of the IAF Bureau.
	Lewis Peach (died on 22/11/2014) Lewis Peach has brought together, and supported, many different IAF-member space agencies, industry and consultancy for years not only in the technical field of project and knowledge management to the space community, but also by strengthening and enabling a deep friendship for a common future.
	Brent Smith Dr. D. Brent Smith is the founder and Chairman of the GEOSS Subcommittee of the IAF Earth Observation Committee where he plays a leading role in bringing new ideas and initiatives for this key committee and the Federation.
	Chris Welch For significant contribution to the International Astronautical Federation's activities in the areas of space education and outreach, student and young professional activities.
	Lyn Wigbels For her tireless work on behalf of countless young people who are destined to be the leaders of the space community, the IAF is proud to recognize Lyn Wigbels IAF Ex Vice President for Youth and Workforce Development and present her with the IAF Distinguished Service Award.
	Junhua Yang For his professional dedication to organize the IAC-2013 in Beijing.

The importance of Climate Observations from Space



The recent "Climate Symposium" organised by EUMETSAT and the WCRP addressed the specific need for, and role of, climate observations from space. Held over 5 days in Darmstadt, Germany in October 2014 the symposium addressed what have been identified by WCRP as "the Grand Science Challenges" of climate in the context of the recently completed IPCC 5th Assessment Report. Bringing together representatives from Space Agencies, Industry, Policy makers and the best names in Climate Science, the symposium provided a forum for the discussion of how space based observations can benefit Climate Science and how this information in turn can be used by decision makers. Recommendations and findings from the symposium can be found in full detail on the Climate Symposium website www.theclimatesymposium.com. They will be presented later in the year at the scientific conference "Our Common Future under Climate Change", which will take place from 7-10 July 2015 at UNESCO, Paris, France. The conference is taking place ahead of the UNFCCC COP-21 which will be held at the end of 2015, a year which is shaping up to be a year of "climate challenges". The findings from the Climate Symposium will feed into the discussions at both of these important events.



by Rowanna Comerford – EUMETSAT

FIRST INDIGENOUS TELECOMMUNICATION SATELLITE OF TURKEY TÜRKSAT 6A WILL BE MANUFACTURED IN TAI...

"TÜRKSAT 6A National Telecommunication Satellite" contract has been signed with an official ceremony with the participation of President of the Turkish Republic Mr. Recep Tayyip ERDOĞAN in Gebze / Kocaeli on December 15th 2014.

TÜRKSAT 6A as the first indigenous telecommunication satellite of Turkey, will be developed and manufactured by; TAI, TÜBİTAK Space, ASELSAN and CTECH. The satellite is expected to be launched in 2020 to 42 E orbital location and will be operated by TURKSAT Inc.

With TÜRKSAT 6A, TAI aims to convey know-how and expertise acquired from indigenous earth observation satellite projects to communication satellites. Within this scope, satellite accommodation design, design and manufacturing of Satellite Structure, Thermal Control, Harness Subsystems including the related AIT activities, design and procurement of Chemical Propulsion Subsystem, and design and manufacturing/procurement of Mechanical Ground Support Equipment will be carried out under TAI's responsibility. Additionally, TAI will co-develop Satellite On-Board Data Handling Software, Command & Control Software and Assembly, Integration and Test activities with TÜBİTAK Space.

The assembly, integration and test activities of TÜRKSAT 6A Satellite will be performed by TAI, TÜBİTAK Space, ASELSAN and CTECH specialists at TAI Assembly, Integration and Test Center in Ankara, Turkey.



by Muhittin Göçer - Turkish Aerospace Industries

HE Space supports new business ideas

From 10 to 12 April a unique event will take place in Bremen. StartupWeekend Space is the first event of its kind in Europe! During this weekend teams will form to formulate space ideas, work intensively on them and finally pitch them to a panel of judges and investors. The participants will be supported by, among others, Claudia Kessler, CEO of HE Space.

"It's a great opportunity here in Bremen to connect the Space Business with ambitious and creative Young Professionals who can generate innovative ideas during this event. It could kickstart businesses that apply space technology to non-space industrial, scientific and commercial fields. This StartupWeekend offers them the space they need." says Claudia Kessler, CEO of HE Space.

During three intense day's leaders from the global space community - entrepreneurs, academics, policy experts and business professionals will mentor and guide the participants, making sure their ideas will translate into real world businesses. For more information see:

<http://blog.up.co/2015/01/21/bremen-hosts-1st-startup-weekend-space-europe/>



by Barbara ten Berge – HE Space

Half a century of Italy in Space: from San Marco satellite to the astronaut Samantha Cristoforetti



50 years ago, on 15 December 1964, the San Marco 1 - the first Italian satellite - was launched into orbit from the Italian launching Base in Malindi (Kenya).

More than one hundred Italian space missions in different fields have occurred since 1964. Italy has played a leading role in many space activities, highly contributing in important space exploration cooperation missions to Saturn, like Cassini-Huygens, to Venus, Mars and Jupiter, like Venus Express, MRO and Mars Express, and JUNO. Not least the participation to asteroids and

comet missions like Dawn and Rosetta, respectively with NASA and ESA. The Italian expertise in astrophysics and astroparticles is internationally recognized thanks to the participation in FERMI, SWIFT and NU-Star NASA missions.

COSMO- Sky-Med radar satellite constellation, an ambitious earth observation dual-use program, has been built for the management of great risks and disasters and for the preservation of the Earth environment. Since 2007 COSMO-SkyMed offered unique capabilities in many disasters and crisis around the world. Recently Italy decided to develop the second generation of the constellation with the aim to assure operational continuity at least for the next decade.

Furthermore the successes of the medium-size ESA launcher VEGA is largely a success also of the Italian space community that played a primary role for its carrying out and policy market. Finally, the first Italian woman astronaut, Samantha Cristoforetti, is flying for the 6 months FUTURA mission aboard the ISS. Samantha recalls the Italian heritage in the ISS, thanks to the collaboration with ESA and NASA: more than 50% of pressurized volume of the ISS was built in Italy and 6 Italian astronauts reached it.

by Francesca Moretto - Italian Space Agency

The S.Korolev Space Museum Presents a Space School



The S.Korolev Secondary School in Kiev, a partner of the Space Museum, is remarkable for its space profile. Apart from the standard education it encourages in its students a strong interest in all space-related things. Recently the school has celebrated 5 years from the date, when it was named after Sergei Korolev.

The school interior itself resembles a museum. Here, each corner is a tribute to the dream of spaceflight that became true. But it is not just an exhibition telling the story of the most secret soviet rocket designer and of the implementation of the idea of space exploration. This is an important element of the educational process. The students are educated on living examples of true heroes: astronauts and people employed in aerospace industry, live rich artistic and scientific life. Remarkable is the space museum organized at the school. This is a real treasury of acquisitions of inquisitive researchers collectors, enthusiasts.

by Victoria Chetvertak – Cosmos Museum

DropTES - A United Nations Fellowship Program for Students at ZARM



After the successful premiere of the DropTES program in 2014, students from non-spacefaring countries are now invited to apply to the second round of an annual United Nations Fellowship Program. It offers selected applicants the unique opportunity to conduct short-term experiments under conditions of weightlessness in the Bremen Drop Tower at the Center of Applied Space Technology and Microgravity (ZARM) in Germany.

Last year the selected research team comprised three Bachelor students and one academic supervisor from the German Jordanian University (GJU) in Amman, Jordan. They convinced the DropTES jury - consisting of members of the supporting organizations: Office for Outer Space Affairs (OOSA), ZARM and the German Aerospace Center (DLR) - with their proposed experiment to test an alternative energy source for satellites in space.



Credit: ZARM; "The DropTES team 2014 from the German Jordanian University in Amman, Jordan"



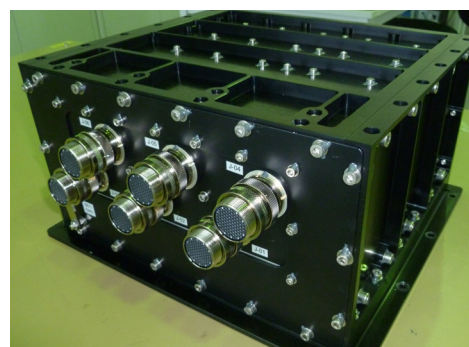
Credit: ZARM; "With a height of 146 meters the Bremen Drop Tower is the only microgravity lab of this kind in Europe"

ZARM, the hosting institute, operates one of the leading ground-based microgravity laboratories, offering 9.3 seconds of high-quality weightlessness up to three times a day. In this scientific environment the DropTES students have the opportunity to carry out a complete hands-on space project and acquire essential skills for a future profession in space research.

If you want to find out more about DropTES, please visit:
<http://www.unoosa.org/oosa/en/SAP/hsti/dropTES.html>.
 Applications deadline: March 31, 2015.

by Birgit Kinkeldey – ZARM

QinetiQ technology on board first European space taxi



QinetiQ technology was responsible for guiding the European Space Agency's IXV 'space taxi' safely back to earth on its maiden test flight launched on 11 February 2015.

QinetiQ's space division has supplied the onboard computer, core of the flight control system with a reliability rate of 99.997 per cent, which ensured IXV's fully automated return to Earth.

This powerful computer supplied the spacecraft with the intelligence necessary for a safe return flight, calculating the optimum angle for re-entering the atmosphere and making a controlled landing possible.

Koen Puimège, business development manager for QinetiQ's space division, said: "We were selected thanks to our strong track record of pioneering roles in the development of similar systems. This project was an exciting opportunity to transfer our existing expertise in onboard computers for high-reliable autonomous satellites into the domain of high-reliable autonomous re-entry vehicles. It's a fascinating emerging market that challenges today's technology.

"The delivery of this contract further strengthens our position as a global supplier of important controlsystems for critical space applications."

The IXV 'space taxi' was the first European initiative by the European Space Agency (ESA) to build a smaller alternative to the American Space Shuttle. The smaller format means lower costs linked to its construction and launch, while the controlled

return to Earth, enabled by QinetiQ's powerful and reliable system, means the spacecraft can be re-used.

IXV could be a suitable alternative to expensive space missions in the future, transporting cargo as well as astronauts into space and back again more economically. Possible future uses include increasing the lifespan of existing satellites, monitoring the Earth, testing new technologies and performing fundamental research in space.

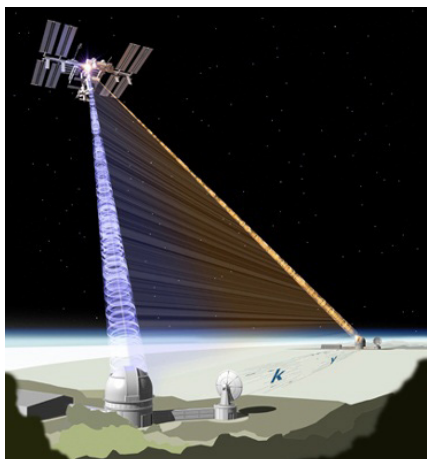
The spacecraft was launched from Kourou in French Guiana on 11 February and demonstrated its new technologies before parachuting into the sea, where it floated until a boat picked it up. In a follow-on programme the craft will land on an airfield landing strip.

QinetiQ has been commissioned for the ESA project by the Italian aerospace company Thales Alenia Space and Alenia-Aermacchi.

by Sabine Van Beek - QinetiQ Space nv

Summer School Alpbach 2015 - Quantum Physics and Fundamental Physics in Space July 14-23, 2015

60 European science and engineering students will be selected to participate in the Summer School Alpbach 2015 and split into 4 teams to design a space mission each to find out how satellite missions could help to develop and enrich quantum physics research and if future satellite missions could benefit from quantum physics. Student teams will elaborate the design of space missions to make discoveries in gravity wave astrophysics and the verification of the fundamental principle of equivalence in Einstein's theory of General Relativity. Each team will present a short mission study to an expert review panel and 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 and cooperating states.

Application Deadline: March 31, 2015

Online Application: www.summerschoolalpbach.at

The Summer School is organised by FFG and co-sponsored by ESA and the national space authorities of its member 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.

by Michaela Gitsch - Aeronautics and Space Agency

The German Aerospace Congress



The German Aerospace Congress "DLRK" (Deutscher Luft- und Raumfahrtkongress) in September 2015 with up to 700 participants will take place in the famous maritime environment of the historical city of Rostock. Please find a link to the video made by the city's management to win the competition for the German Aerospace Congress "DLRK": <http://www.youtube.com/watch?v=byev3rWf9Fk>

by Franz Spaunhorst – DGLR



2015 ECSL PRACTITIONERS' FORUM SPACE GOVERNANCE IN EUROPE: ESA'S ROLE AND EU REGULATION OF SPACE ACTIVITIES

The [European Centre for Space Law \(ECSL\)](#) will be holding its annual Practitioners' Forum on 27th March 2015 – after the IAF Spring Meeting. The Practitioners' Forum takes place in Room A at ESA Headquarters in Paris (8-10 rue Mario-Nikis).

A one-day Practitioners' Forum has been organised every year since 1992. The aim of the Forum is to provide those working in the space sector with a forum for the exchange of views, knowledge and information. During the Forum experts present the latest developments impacting on space in, for example: EU law, contracts and procurement law, telecommunications, liability and insurance, etc. The presentations are followed by a lively question, answer and discussion session.

The theme of the Forum in 2015 is 'Space Governance in Europe: ESA's Role and EU Regulation of Space Activities'. Speakers from ESA, the EU Commission, the European Court of Justice, industry, the legal profession and academia are invited.

See the [Programme and Registration form here](#).

by Edmond Boule - ESA

SSTL appoints Patrick Wood as Group CEO



Surrey Satellite Technology Ltd (SSTL) has appointed Patrick Wood as Group CEO, with effect from 1st April 2015.

Patrick Wood joins SSTL from Airbus Defence and Space, where he was most recently Head of Engineering and Operations and an Airbus Group Executive. He brings with him an outstanding track record within the space engineering sector, having previously steered the Skynet 5 programme to success including in-orbit delivery of three geostationary military telecommunications satellites and associated ground network and infrastructure. He was also CTO for Airbus Defence and Space satellite business, and later Engineering and Operations Director with pan-European responsibilities.

Sir Martin Sweeting, Executive Chairman of SSTL, in welcoming Patrick Wood to his new role at SSTL, said: "We are very fortunate indeed in finding someone with Patrick's rare combination of detailed engineering experience, proven management capability and passion for satellites to join SSTL. He takes up this important role at a time when the small satellite industry is burgeoning and he will be taking charge of a full production line at SSTL, where we have 21 satellites and 22 Galileo payloads currently in manufacture."

Patrick Wood commented on his new appointment: "Leading the SSTL Group is a fantastic opportunity and I am very much looking forward to the challenge. SSTL has a remarkable 30 year record of driving key innovations in space, and is perfectly placed to continue to drive change in the future, especially now that more and more of our day-to-day services rely on satellite systems."

Previous to his roles at Airbus, Patrick Wood worked for Medelec, part of Vickers plc, and Thorn EMI Sensors Group.

Patrick Wood is a Fellow of both the Institute of Engineering and Technology and the Royal Aeronautical Society.

by Joelle Sykes - Surrey Satellite Technology Ltd

SGAC Announces Speed Mentoring Event at SATELLITE 2015

Deadline for Applications: 27 February, 2015



Save the date for the 18th March in Washington DC! For the second year, SGAC has partnered with SATELLITE 2015, the world's premier event in satellite communications to organise a high-level mentoring programme!

The world's premier event in satellite communication, SATELLITE 2015, will take from 16 - 19th March 2015, at the Walter E. Washington Convention Center in Washington DC, USA. SGAC invites its members to join senior industry representatives in the communications satellite sector to this great event.

To make the best of this event, SGAC is once again supporting SATELLITE 2015 with two initiatives – a speed mentoring event for young professionals, and opportunities to win full fee scholarships to the entire conference (valued at over USD \$2,579). By collaborating at this event SGAC also hopes to encourage the participation of young people in the industry and within the IAF.

Apply here for Satellite 2015:

<http://spacegeneration.org/home/news/51-events/events/1325-satellite-2015-applications.html>

More information on SATELLITE 2015 can be found here:

www.satshow.com

by Vinita Marwaha Madill – SGAC

Space Generation Congress (SGC) 2015 To Be Held in Jerusalem



Building on the success of the 13th Space Generation Congress (SGC) in Toronto, Canada, SGAC is gearing up to begin

preparations for SGC 2015. The 14th Space Generation Congress will take place in Jerusalem, Israel from 8th - 10th October 2015, and will be held in conjunction with the 66th International Astronautical Congress (IAC).

Further information can be found here: <http://spacegeneration.org/event/sgc.html>

by Vinita Marwaha Madill – SGAC

Space Generation Advisory Council Fusion Forum 2015: Inspiring Investment In Space



The Space Generation Advisory Council Fusion Forum 2015, held in conjunction with the Space Symposium, gathers a select group of 50 young space professionals from government, industry and academia.

Participating delegates can expect to:

- Network with high-level industry & government professionals
- Discuss solutions & policies to inspire investment in space
- Engage with delegates from different countries and backgrounds
- Experience the opening of the 31st Space Symposium

Apply here by March 28, 2015 for your chance to attend:
<http://spacegeneration.org/event/sgff-2015>

For further information please contact:
fusionforum@spacegeneration.org

by Vinita Marwaha Madill – SGAC

SGAC Asia-Pacific Regional Space Generation Workshop

SGAC is excited to announce its second edition of the Asia-Pacific Regional Space Generation Workshop (AP-SGW) to be held on November 28 (Sat) and 29 (Sun), 2015 in Bali Island, Indonesia. The event aims to highlight regional thinking and is geared towards university and young professionals mainly in Asia-Pacific region and planned to be held in conjunction with the 22nd Asia-Pacific Regional Space Agency Forum (APRSF).

Students and young professionals below 35 years old mainly from Asia-Pacific region will discuss “approaches to promoting Asia-Pacific regional collaboration in the space sector - the next generation perspective”. It also invites eminent speakers from the region to provide opportunities where participants can learn from the current generation leading the regional cooperation in the space sector.

The objective of the AP-SGW is:

- To strengthen the regional network of the students and young professionals in the Asia-Pacific region
- To examine and consider key questions in Asia-Pacific region that the regional space community is facing and to provide inputs from the next generation of the space professionals
- To allow tomorrow's space sector leaders in the Asia-Pacific region to have the opportunity to interact with today's space leaders in the region through the cooperation with APRSAF.

Contact Event Manager Zihua Zhu (nicholas.zhu@spacegeneration.org) for further information on how to attend and sponsor this unique event, enabling increased international visibility and at the APRSAF.

Further information can be found here:
<http://spacegeneration.org/home/1297-first-asia-pacific-regional-space-generation-workshop.html>

by Vinita Marwaha Madill – SGAC

SGAC South America Space Generation Workshop (SA-SGW) To Be Held In Buenos Aires, Argentina.



The SGAC South America Space Generation Workshop will take place from 4-5th May 2015. SA-SGW is a two-day regional workshop for university students and young professionals in the South America region in conjunction with the 8th Argentine Congress of Space Technology (8th CATE) also held in Buenos Aires, Argentina on May 6th – 8th 2015.

During the 1st SA-SGW, delegates will have a unique opportunity to engage with high level space sector leaders, professionals and academics. The agenda includes panels, discussions, and working groups on current space topics. In the working groups segment, participants will collaborate with peers as well as experienced specialists on the topics of:

- Education and space outreach programs
- South American Space Agency
- Technology and research advancements in South America and what it will take to grow the South American region
- Mars missions simulations in South America
- To conclude the workshop, the output from these working groups will be presented at the SA-SGW and further submitted as SGAC recommendations to United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS).

Applications for the workshop (Deadline: 6th April) and additional information can be found here:

<http://www.spacegeneration.org/event/sa-sgw-2015>

by Vinita Marwaha Madill – SGAC

WOMEN IN AEROSPACE EUROPE



Dear distinguished member of the global aerospace community,

Undoubtedly, you are aware of the great potential gender diversity can add to the successful development effort in private and public institutions, specifically in the aerospace sector, and certainly special attention to gender diversity is a priority issue on your strategic agenda.

But did you know that...

... Companies with more women in top management positions tend to exhibit better organisational and financial performance? [McKinsey & Company, "Women Matter 2013"]

Considerable progress on gender diversity has been made in recent years and momentum has increased, but women are still underrepresented at the top of corporations, across all industries and at a global level. **Women in Aerospace-Europe (WIA-E)**, founded in 2009, is an international association dedicated to expanding leadership opportunities, increasing the visibility of women in the aerospace sector, to engage young girls in science and technology and to support education of women in aerospace fields. The WIA-E community comprises currently more than 400 individual and more than 15 corporate members sharing the vision of an aerospace sector with a balanced representation of women on all levels. Major Space Agencies, like DLR, CNES and ESA, prominent industries like Airbus Defence & Space and SES and well-known non-profit organisations like the Secure World Foundation and the European Space Policy Institute (ESPI) are part of our steadily growing corporate membership family. We are also proud to be able to count on top-level aerospace officials, both men and women, to support our mission as individual WIA-E members.

Cooperation agreements with strategic partners like *COSPAR*, *the International Space University (ISU)*, *the Space Generation Advisory Council (SGAC)* and - soon also - *the International Astronautical Federation (IAF)*, make WIA-E a recognised actor in the global aerospace network.

Being part of our ever-growing network means benefiting from our programs and special member offers, as well as connecting with like-minded professionals through our local communities. Our final goal is to develop a society in which diversity will not be noticed anymore and to advocate the importance of space activities at the same time.

During the upcoming IAF Spring Meetings WIA-E will be prominently represented with several important events on **Tuesday, 24 March 2015**, CAP15 Conference Center in Paris:

- 08:00 - 09:30 **WIA-E Breakfast & Award Ceremony (room Pacific)**
- 10:00 - 12:00 WIA-E Board of Directors Meeting (restricted to WIA-E Board members)
- 13:00 - 14:30 WIA-E first Local Groups Leaders meeting (restricted to WIA-E Local Groups leaders and Board members) - a platform for networking and face-to-face communication of this diverse community



- 15:00 - 17:00 **WIA-E Panel Summit (room Newport F&G)**
Title of the panel discussion is "Women involved in the Rosetta mission". The main idea of the panel is to show the involvement of women in such high-tech and highly visible programs like Rosetta. The panel will be moderated by the Chair of the WIA-Europe Board of Directors, **Claudia Kessler**. Prominent speakers amongst others will be **Simonetta di Pippo** (WIA-E President), **Elsa Montagnon** (ESA Deputy Flight Director for Rosetta), **Amalia Ercoli Finzi** (responsible for the driller of Philae lander)

WIA-Europe would like to kindly invite you to join us for this interesting Panel Summit.

WIA-Europe, your reliable partner on the way to a diverse and balanced aerospace community at all levels, invites you, women and men in aerospace, managers and staff, public and private organisations and institutions, to join and become pioneers in changing traditional mindsets and fostering a corporate culture embracing diversity.

by Elena Feichtinger - WIA-Europe

The Italian National Research Council (CNR) and Space Research: a long- standing relationship



Since its establishment in 1923, the CNR, under the leadership of outstanding scientists, such as the Nobel laureate Guglielmo Marconi, who acted as a President for a decade (1927-1937), strengthened its role and broadened the fields of scientific investigation. In 1959, the CNR set up a Commission for Space Research, with the involvement of professors Ugo Amaldi and Luigi Broglio, who had a deciding role in the launch of the first Italian scientific satellite, San Marco, just after the URSS and the USA (1964). Broglio also set up an original mobile equatorial sea launch platform during the '60s: the San Marco-Malindi base in Kenya, which was partially financed and administered by the CNR and is still operative as the ground station Luigi Broglio Space Centre (BSC). Furthermore, the CNR acted for several years as the Italian space agency (1980-1988) and established the Italian national Plan for outer space activities. In 1988, when the Italian Space Agency was set up as the main body for coordination of the Italian activities in outer space, the CNR continued to further its involvement in space research.

The CNR is permanently engaged, with its current budget of around 1.3 billion € and through the network of its institutes which cover all the areas of scientific research, in projects and activities related to outer space. Among them, it is worthy to mention the Luxor-CNR Laboratory of Padua, which contributed to the Rosetta's mission by designing and testing the Wide Angle Camera (WAC); the Crystallography Institute, dealing with diverse aspects of human safety in space; the Institute of Clinical Physiology, whose researchers are participate to the Mars 500 mission's project; the Institute of Applied Physics, involved in the development of new space technologies, and, finally, the Institute of Biometeorology aimed at monitoring terrestrial and marine ecosystems. Furthermore, in August 2012 the review Scientometrics analyzed the "Global Remote Sensing Research Trends during 1991-2010" on the basis of

48.754 publications, and found out that the CNR was among the most productive entities for the number of publications on remote sensing, just after six American universities and research institutions.

Finally, an important contribution to outer space research is given by the Institute for International Legal Studies (ISGI), which has been involved in the elaboration of some legal instruments of space law in recent years, such as the UNIDROIT Protocol on Space Assets to the Cape Town Convention of 2010 and the Code of Conduct for Outer Space Activities, initiated in 2007 by the European Union. On top of being the Italian National Point of Contact (NPOC) of the European Centre for Space Law (ECSL/ESA), since 2009, ISGI organizes, in cooperation with the Italian Space Agency and the Italian Society for International Organisation, a multidisciplinary Master on "Space Institutions and Policies".

Viviana Iavicoli – CNR-ISGI

Spending review times also within the SpaceLand program!

By converting an existing "wide-body" flight vehicle currently providing top-level flight services to USA Federal institutions, SpaceLand is succeeding in drastically cutting down microgravity flight program costs to the benefit of high-tech SMEs, space-entrepreneurs, science research groups as well as schools and STEM-related universities with low-budget projects, giving a fair chance for weightless and low-gravity flight experiences also to disabled people as well as school-pupils, as young as 11 years old, and elderly up to 93 years of age.

Optimizing payload engineering support, analytical integration, ground and underwater training as well as parabolic flight operating costs, from mid-2015 the SpaceLand program will provide international users with a series of unprecedented opportunities to "democratize" a user-friendly access to basic and applied research in weightlessness for both life & material sciences as well as for technology innovation projects, also featuring low-gravity test conditions, e.g. Mars-gravity and Moon-gravity levels, and providing hypo-gravity emulating the very low G-levels of the surface of asteroid and comets. The flight vehicle also features a full-cargo door, ideal to install large science and technology test hardware in its long and large cabin, which can host up to 80 passengers per microgravity flight.

A public "SpaceLand weekend" with flight readiness review and microgravity flight training, open to the public from 10 to 95 years of age, is planned for 28-29 March at the SpaceLand Camp; info on the new community website:

www.SpaceLand.it

by Francesco Massa - Marco Brizio – SpaceLand



Record-breaking crew-members selected among the general public, trained and brought to fly by SpaceLand team led by former ESA-zero-gravity test engineer and Space Station MIR European Technology Experiments Coordinator Doct. Carlo Viberti for *biomedicine, technology and/or bioengineering* experiments commissioned by Nobel-Prize-winner led groups, taking off from the NASA Space Shuttle L.F. (Kennedy Space Center, Cape Canaveral, Florida)

World's youngest kid as research test subject in zero-gravity: 11 yrs old

11-year-old Kim Marco Viberti flew in 2008 as test subject for neurobiological sampling experiments related to studies on neuropathologies such as the Alzheimer's syndrome, commissioned to SpaceLand by the European Brain Research Institute led by dr. Rita Levi Montalcini (Nobel Prize winner), Italian State Health Institute (ISS), Italian State Research Center (CNR) and University of Milan (I); results reported in scientific paper issued for the European Low Gravity Research Association's Congress in Bonn (D).



Left : free-flying break between sampling, right: interview by Italian State TV "TG1" prime news report

World's oldest man in zero-gravity: 93 yrs old

93 year old man, flying as test subject for bioengineering experiments commissioned by the Don Gnocchi Science Foundation's Bioengineering Center of Milan (image from CNN TV news report)



Images show footages from CNN TV reports

World's 1st disabled for technology tests in zero-g

100% disabled woman as test operator for hand-free ICT control systems commissioned by AIDA Modena ("Informatic tools for disabled and elderly")



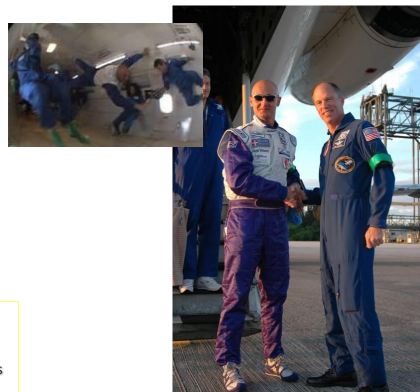
Footage showing Elma operating at the SpaceLand technology payload rack, broadcasted by the Italian State TV "RAI2" and Mediaset TG 4 news reports

SpaceLand / Carlo Viberti have been awarded, inter alia, the following prizes:

- . European "EOS" Award for Innovation Policy, by the European Commission
- . Prize "Torre di Castruccio" - Gold Medal by the President of the Republic of Italy
- . Prize "Etica ed Impresa" by Italy's Federmanagement and AssoQuadri associations
- . Italian Aeronautics and Astronautics Association Award
- . Finalist rank for Italy's ConfCommercio "Innovation Prize" and several other awards

First non-US citizen taking off from NASA Space Shuttle L.F.

SpaceLand Flight Mission Commander **Eng. Doct. Carlo Viberti** is the **1st non-U.S. citizen** authorized to take off for microgravity research flights from the NASA Kennedy Space Center. He has been formally proposed by the *Head of the Italian Space Agency* to fly as **1st Astronaut-Engineer** on the **first sub-orbital research flight campaigns**. The program has been presented with guest lectures in Oxford at the 1st UK Space Agency's workshop on microgravity and the 1st Space Commerce Summit in 2013 in London with NASA



Left: footage from RAI and Swiss State TV; right: Viberti with Space Shuttle pilot Rick Seafors, possible crew of first sub-orbital research flight being endorsed by the ASI President

Underwater Training Camp for Italian Space Agency & University of Cagliari's Lunar exploration technology programs

Footages from Italian State TV documentaries broadcasted on RAI 2 TV (search for videos on U-Tube and Google key words "SpaceLand Viberti")



www.SpaceLand.it

Interview with Menachem Kidron, Director General, ISA



Mr. Menachem Kidron is the Director General of the Israel Space Agency and the LOC – Chair of the IAC 2015 in Jerusalem, Israel.

Menachem Kidron obtained a bachelor's degree in chemical engineering at the Technion - Israel Institute of Technology. He has held a number of leadership positions at Rafael Advanced Defense Systems Ltd., one of Israel's leading aerospace companies. This positions include: Director General of the Space Directorate, Executive VP and Director General of the Manor Technologies Division, Head of the Manor Directorate, and Director of propulsion system, Earlier in his career at Rafael, Mr. Kidron served as a system engineer of solid rockets motors, section head for R&D of propellants for solid rocket motors, and engineer for R&D of solid rockets motors. Mr. Kidron has taken sabbaticals at Stanford University and the City University of New York as a research associate.

1. What does organizing a prime event such as the IAC really mean for Israel?

We see this distinguished conference, considered to be the largest and the most comprehensive annual space conference in the world, as recognition by the space-faring nations of Israel's commitment to and achievements in space exploration, science and technology. Israel Space Agency is excited to host this prestigious event in the area bounded only by our imaginations. We also see this event as an excellent opportunity to provide broad exposure for all of the delegates with the growing Israeli space sector, an opportunity that will consolidate existing relationships while enabling new connections to sprout new, innovative ideas and prospects for cooperation between entrepreneurs, scientists, researchers and industries for the betterment of all mankind. As such, the congress is consider to be a very important and meaningful event for the space community: the academia, research institutes, space industries, Jerusalem municipality and high level government officials.

2. What are the main distinctive features of the IAC 2015 in Jerusalem that will make it special?

It is such a rare opportunity to host a conference on the forefront of science and technology in a place that also symbolizes a special spiritual significance to many religions and cultures. I expect that this unique "Jerusalem experience" will serve to inspire each conference attendee on a very personal level.

3. Would you like to give a message to the Young Space Generation to encourage them in their work and to attend the IAC 2015?

We face many challenges, several of which will be exposed during the conference, that require today's young generation to invest their time, mind and energy to help address. This will help influence their future and enable them to realize their natural place to further promote the gains made by their predecessors and to continue the pioneering work needed. The future belongs to the young and it is our duty in the space community to provide young people the inspiration and direction.

4. How does the preparation of the IAC 2015 proceed?

Organizing a conference like the IAC is a complex undertaking, and needs to be closely managed. ISA is working closely with Paragon Group, the PCO (Professional Congress Organizer) responsible for all congress logistics and management. We have recently hosted the IAF team in Jerusalem and visited the Jerusalem International Convention Center, selected hotels and potential venues for IAC social events. All of these locations are situated in the modern part of Jerusalem, supported by good public transportation, restaurants and other attractions. We are strongly marketing the IAC on a local and international level through various organizations (companies, societies and associations), universities, space research institutes, journals and regular updates on social media channels. It is a great honor for Israel to host the 66th IAC Congress in Jerusalem. We look forward to welcoming the delegates to Israel's largest city, a mosaic of unique contrasts of cultures and nationalities; of ancient history and modern progress; offering an exceptional amalgamation of spiritual sanctity and colorful culture.

5. Which social and technical tours would you recommend to IAC 2015 participants?

A variety of technical tours is offered and includes well known, established companies as well as start-up companies, universities and space research institutes. The abundant selection will enable the delegates to intimately experience the broad spectrum of space activity in Israel. Plans are also being made for cultural tours. Israel features an abundance of history, with religious significance for many different faiths, modern comforts, cosmopolitan infrastructures, advanced innovations, high-tech technologies, unique landscapes and a beautiful climate all year round. We have chosen carefully the most intriguing and exciting tours Israel has to offer: from short visits to Jerusalem to 2-3 day tours throughout Israel. Thus, each IAC attendee, depending on the amount of their available time, interests and budget, could enjoy an experience best suited to their interests.

The banner for GLIC 2015 has a dark blue background. It features faint, glowing white lines that form a complex, web-like pattern, resembling a constellation or a technical diagram. The text 'CLIK HERE to Register for GLIC 2015' is centered in white, with 'CLIK HERE' in a larger, bold font.

CLIK HERE
to Register
for
GLIC 2015

The banner for IAC 2015 has a yellow background. It features a faint, golden line drawing of a complex mechanical structure, possibly a space station or a large telescope, with many interconnected beams and components. The text 'CLIK HERE to Register for IAC 2015' is centered in white, with 'CLIK HERE' in a larger, bold font.

CLIK HERE
to Register
for
IAC 2015