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# International Astronautical Federation News

Connecting @ll Space People

1/2017 (March 2017)



## President's Welcome

Dear colleagues,

Welcome to the March 2017 IAF newsletter.

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 a Bureau Meeting.

This year we will also be adopting a new initiative, as Tuesday 21 March will be IAF IDEA "3G" Diversity Day with three main key events focusing on different diversity aspects and providing valuable networking opportunities to bring together a global IAF community, including IPC members, IAF committee members and IAF member representatives.

After that, we will be meeting in June for this year's Global Series Conference on Space Exploration, GLEX 2017. This promises to be an outstanding high-level event, bringing together leaders and decision-makers from the science and human exploration community to discuss recent results, current challenges, innovative solutions and the benefits of investing in space exploration.

Later in the year, in September, you are invited to Adelaide to attend the 68<sup>th</sup> IAC, which is returning to Australia 18 years after Melbourne hosted the 49<sup>th</sup> Congress. We look forward to exploring how space can unlock our imagination, foster innovation and strengthen security! I hope you have already saved these dates.

Best wishes and see you soon.

**Dr. Jean-Yves Le Gall**  
IAF President



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#### INTERVIEW: Dr. Pascale Ehrenfreund and Mr. Dengyun Yu

#### IMPORTANT DATES 2017:

- IAF Spring Meetings – 21-23 March 2017
- GLEX 2017 – 6-8 June 2017
- IAC 2017 – 25-29 September 2017



#### Platinum



#### Gold



#### Silver



#### Bronze



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## IAF SPRING MEETINGS 21-23 March 2017

The annual IAF Spring Meetings will be taking place from 21 to 23 March 2017 in the newly renovated New Cap Event Centre in Paris. The Spring Meetings allow the IAF's network of scientific and technical experts to get together once a year and discuss key aspects of the upcoming IAC. Administrative and Technical Committees meet, the International Programme Committee selects the abstracts to be presented during the #IAC2017 and experts discuss the latest and most current developments of space activities at the Global Networking Forum (GNF).

The usual IAF Cocktail will take place on Wednesday 22 March 2017, from 20:00 to 23:00.

### At a Glance



### MEETING PLANNER

TIME	EVENT	ROOM
<b>Tuesday 21 March 2017</b>		
08:00 – 09:30	IDEA Breakfast	Eiffel
09:30 – 11:00	CLIODN Meeting	Seine 1
09:30 – 11:00	Entrepreneurship & Investment Committee Meeting	Seine 2
09:30 – 11:00	Small Satellite Commercial Applications CM	Seine 8
09:30 – 12:30	SEOC Meeting	Seine 9
10:00 – 13:00	IAA Space Debris Committee Meeting	Seine 3
10:00 – 12:00	Finance Committee Meeting	Seine 4
11:00 – 13:00	Space Security Committee Meeting	Seine 1
11:00 – 13:00	Space Economy Committee Meeting	Seine 2
11:00 – 13:00	ITACCUS Committee Meeting	Seine 8
11:00 – 13:00	3G Diversity Award Subcommittee Meeting	Grenelle 3
12:00 – 13:00	IAC Finance Evolution WG	Seine 4
13:00 – 14:00	IDEA LUNCH	Eiffel
14:00 – 16:00	Industry Relations Committee Meeting	Seine 2
14:00 – 16:00	WDYPP Committee Meeting	Seine 3
14:00 – 16:00	IPC-SG Meeting	Seine 4
14:30 – 16:00	Organization Working Group	Seine 8

Check for more news on our Social Media



15:00 – 17:00	GEOSS Subcommittee	Seine 1
16:00 – 18:00	SGAC Advisory Board Meeting	Seine 2
16:00 – 18:00	ACHA Committee Meeting	Seine 4
16:30 – 18:00	IAC Programme Evolution WG	Seine 3
18:00 – 19:30	IDEA Afterwork	Eiffel

## Wednesday 22 March 2017

08:00 – 09:00	GNF - Outcome of the Council Meeting at Ministerial Level	Seine (5, 6, 7, 8, & 9)
09:00 – 10:00	Space Power CM	Seine 2
09:00 – 11:00	Task team on GNF for Adelaide and Bremen	Seine 1
09:00 – 11:00	ERMC Meeting	Seine 8
09:00 – 11:00	Commercial Spaceflight Safety Committee Meeting	Grenelle 3
09:00 – 12:00	Space Operations Committee Meeting	Seine 3
09:00 – 12:00	SEOC Meeting	Seine 9
09:00 – 13:00	IAF Bureau Meeting Pt.1	Roof top
09:00 – 14:00	Aerodynamics Committee Meeting	Seine 4
10:00 – 11:00	Microgravity Sciences and Processes CM	Seine 6
10:00 – 13:00	Human Spaceflight Committee Meeting	Seine 2
11:00 – 13:00	Earth Observation Committee Meeting	Seine 1
11:00 – 13:00	Space Propulsion Committee Meeting	Seine 8
11:00 – 13:00	Space Systems Committee Meeting	Grenelle 3
12:00 – 13:00	Space Life Sciences Committee Meeting	Seine 9
12:00 – 15:00	IAF Space Exploration Meeting	Seine 3
13:00 – 14:00	SUAC Meeting	Seine 6
13:00 – 14:00	IAC Evolution Coordination SG Meeting	Seine 8
13:00 – 14:30	KMTC Meeting	Seine 1
13:00 – 14:30	SCAN Meeting	Seine 9
13:00 – 15:00	Space Societies Committee Meeting	Seine 2
13:00 – 15:00	SATC Meeting	Grenelle 3
14:00 – 15:30	Materials and Structures Committee Meeting	Seine 4
14:00 – 15:30	Space Transportation Committee Meeting	Seine 8
14:00 – 15:30	Emerging Countries Meeting	Seine 6
14:30 – 15:30	Integrated Applications Committee Meeting	Seine 1
14:30 – 15:30	CSAC Meeting	Seine 9
15:00 – 17:00	Space Museums Committee Meeting	Seine 2
15:30 – 16:30	IAC Selection Evolution WG	Seine 9
16:00 – 17:30	HAC Meeting	Seine 4
16:00 – 17:30	TAC Meeting	Grenelle 3
16:00 – 16:30	YSL Recommendation	Grenelle 1
17:30 – 17:45	GNF Opening	Seine (5, 6, 7, 8, & 9)
17:45 - 18:30	“A step by step approach to low-cost access to space”	Seine (5, 6, 7, 8, & 9)
18:30 - 19:00	“The OG Summit - Shuttle Diplomacy in a New Space Age”	Seine (5, 6, 7, 8, & 9)
19:00 - 20:00	“PROXIMA Mission Presentation”	Seine (5, 6, 7, 8, & 9)
20:00 – 23:00	IAF Cocktail Reception	Grenelle (G1, G2, & G3)

## Thursday 23 March 2017

08:00 – 10:00	IPC General Meeting & Award Ceremony	All Seine
10:00 – 13:00	IAC 2017 Abstract Selection	All Seine
10:00 – 13:00	IAF Bureau Meeting Pt.2	Roof top
13:00 – 14:00	IAF President Press Cocktail	Grenelle (G1, G2, & G3)

## IAF DISTINGUISHED SERVICE AWARD 2017

The IAF is pleased to announce the 8 Awardees to the IAF Distinguished Service Award 2017.

Congratulations to: Antonio Viviani, Jim Zimmermann, Carolyn Knowles, Martin Sweeting, Chong Yean Joo Augustine, Frank Friedlaender, and Suzann Parry.



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 2017 Spring Meetings – IPC General Meeting on 23 March 2017, 8:00 – 10:00, at New Cap Event Center, 1-13 Quai de Grenelle, 75015 Paris.



**Antonio Viviani**, for his contribution to Microgravity sciences and processes Committee affairs and Microgravity Symposia organizing for already more than 20 years.



**Carolyn Knowles**, for being a valuable member of SEOC since 2012. As Vice-Chair Outreach, she has been an invaluable member of the committee and liaison with the International Space Education Board (ISEB). Each year Carolyn supports the delivery of the IAF Student Program, the Teacher Professional Development Program and local outreach activities. Carolyn is a member of the SEOC Student Competition subcommittee and contributes to the smooth operation of the E1 Symposium through Chairing sessions and reviewing abstracts.



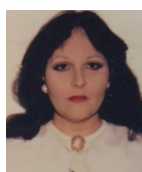
**Chong Yean Joo Augustine**, for his outstanding services to IAF, his continuous support for IAF Earth Observation Committee, and his unwavering commitment to innovation and technology development.



**Frank Friedlaender**, for more than 20 years' service to space education, outreach and future workforce development.



**Jim Zimmermann**, in recognition of James Zimmerman's many years of dedicated and thoughtful service to enhance and strengthen the International Astronautical Federation including his exemplary Presidency of the Federation focusing on the growth of the Federation through new memberships and young people of the Next Generation.



**Orna Marie Orshan**, for Orna's extraordinary dedication and commitment, in service of the Federation, in various functions and roles; as the first representative of the Israel Space Agency membership in several leading IAF Committees. With outstanding professionalism, talent, innovation, creativity and personal determination and devotion, overcoming many setback and obstacles, Orna brought the IAF-IAC-2015 to Jerusalem, Israel. The IAF-IAC-2015 Congress in Jerusalem contributed much to Israel's status within the global space community, highlighting Israel's scientific capabilities as a start-up nation.

\* Orna Marie Orshan sadly passed away, please see page 8



**Suszann Parry**, for her enthusiasm, energy and competences to serve IAF as volunteer and member of the CSAC contributing year after year to the best choice of location for the International Astronautical Congress.



**Martin Sweeting**, a pioneer in promoting and building small inexpensive satellites, founder of Surrey Satellite Technology Ltd (SSTL), one of the « Top Ten Great Britons » in 2008, while he successfully worked at changing the economics in space science and applications, Sir Martin Sweeting, along all these years, showed his commendable dedication to IAF by a very active participation in its congresses and committees, in particular in his capacity of Chairman of the Honours and Awards Committee which he led with a remarkable sense of the value it should bring both to the awardees and to the IAF.

## IAF IDEA “3G” Diversity Day at Spring Meetings 2017



**INTERNATIONAL PLATFORM FOR DIVERSITY  
AND EQUALITY IN ASTRONAUTICS**  
**3G GEOGRAPHY • GENERATION • GENDER**



Following the very successful inauguration of the new **IAF IDEA “3G” Diversity platform** with the “3G” IDEA Diversity Luncheon at **IAC 2016 in Guadalajara**, Mexico, with more than 5000 participants and most prominent speakers, the IDEA platform will be offered to a broader IAF community during the **IAF 2017 Spring meetings** in Paris (21-23 March 2017).

Considering the presence of a significant number of IAF stakeholders in Paris to participate in the annual Committee meetings and IAC abstracts selection, **Tuesday, 21 March 2017**, shall 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 feature an introductory speech by the IAF President.

The **IAF IDEA “3G” Diversity Day** (21 March 2017) shall host three main events:

IDEA Breakfast (8:00 – 9:30) focusing on gender diversity issues. A platform for the IAF community to share, discuss and elaborate with prominent space leaders from IAF member organisations issues of gender diversity in the space community. Roundtable discussions with prominent space leaders chairing and moderating discussions on 5 different gender diversity topics. They will be distributed over 5 groups and assigned to one of the following gender diversity topics:

Table 1 – Gender Diversity in different cultural environments (US – Europe – Asia)

Table 2 – Gender Diversity in different working environments (Agency – Industry – Academics)

Table 3 – Gender Diversity – a generational issue?

Table 4 – Gender Diversity at different seniority levels

Table 5 – Gender Diversity – How to best promote it?

Participants will be assigned to join the different tables by drawing a lot at registration.

This new format allows to implement in practice the motto of the **IAF Global Innovation Agenda 2016 – 2019** “Connecting @ll Space People” and provides a unique opportunity for direct networking between the IAF community and top-level space officials.

**IDEA Lunch** (13:00 – 14:00) will focus on young generation and shall offer the opportunity to present specific projects of IAF members to support the young generation of the astronautics workforce. ESA Director General, Jan Woerner, will give a keynote introducing the “ESA Young Professionals” programmes. A buffet lunch shall be offered.

**IDEA After Work Gathering** (18:00 – 19:30) After completion of committee meetings at 18:00, all participants are invited to meet for an IDEA After Work Gathering, which will mainly be a networking event with a focus on geographical diversity. A new IAF series of “International Business Etiquette” presentations will be inaugurated which focuses on geographically diverse countries in which the IAF is holding events or having activities. Such presentations should be given as a 20-minute keynote by a knowledgeable representative of a selected country focusing on expected behaviours, expectations for individual actions within the space community and specific habits and peculiarities in a professional as well as social environment. Considering that the next major IAF event will be the Global Space Exploration Conference (GLEX 2017) hosted by the Chinese Society of Astronautics (CSA) in Beijing, China, Mr. Dengyun YU, IAF VP and Deputy Director of Scientific and Technological Steering Committee at CASC will initiate this series with a keynote on “International Business Etiquette – Focus on China”. Drinks and finger-food shall be offered.

## GLEX 2017



#GLEX2017 will bring together key Space Exploration stakeholders from around the world: Space Exploration programmes around the world have evolved dramatically and are presented with both challenges and exciting opportunities.

#GLEX2017 is co-organised by the Chinese Society of Astronautics (CSA) who arranged several technical visits to show and share with the world China’s space achievements:

- China Academy of Space Technology
- China Academy of Launch Vehicle Technology
- The Heavy Launch Vehicle base in Tianjin

Places are limited: hurry up and register at [www.glex2017.org](http://www.glex2017.org)

Over 390 abstracts were submitted from 22 countries. Thank you to all contributors who have chosen GLEX 2017 as their preferred scientific platform for submitting their original research on space exploration. Results for technical, plenaries events and keynotes will be announced end of March.



## IAF Highlights 2016

The IAF is delighted to present you the IAF Highlights 2016, where you will find a compilation of IAF’s most memorable activities during the year. Spring Meetings in Paris, Global Conference on Space and the Information Society – #GLIS2016 in Geneva, #IAC2016 in Guadalajara and the 1st International Space Forum in Trento. And as the IAF President Jean-Yves Le Gall said it: “As important as it is to look back on all the achievements of the year, we are now very focused on 2017, which we hope will turn out to be an excellent and outstanding one both for IAF and for the whole of our community.”

Enjoy your reading!

[http://www.iafastro.org/wp-content/uploads/2017/02/IAF\\_Highlights2016\\_Complete-Doc\\_Feb201702\\_FINAL\\_web-online.pdf](http://www.iafastro.org/wp-content/uploads/2017/02/IAF_Highlights2016_Complete-Doc_Feb201702_FINAL_web-online.pdf)

## IAC 2017



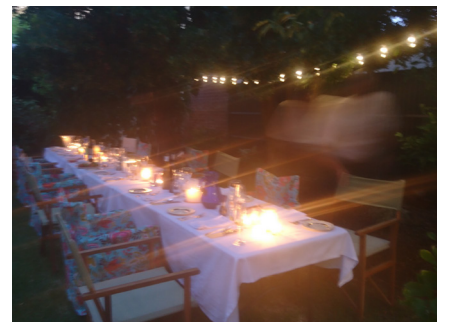
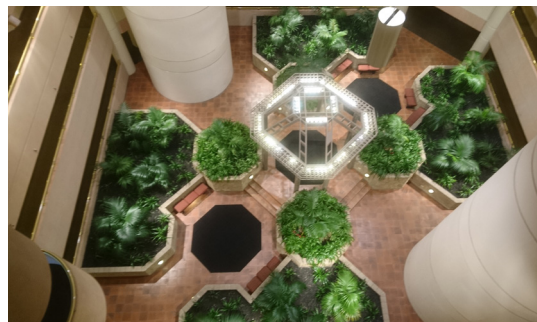
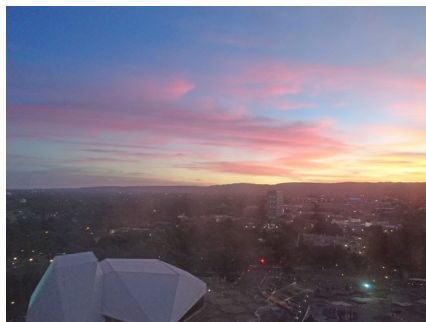
The IAF went to Adelaide for the IAC 2017 Site Visit. IAF, LOC, and PCO clarified important requirements for the IAC and agreed milestones for the run-up to IAC 2017.

### The #IAC2017 is ready!

Get an early registration rate [here](#).

The Call for Plenaries for IAC 2017 was closed on 28 February 2017 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, Naomi Mathers and Christiane Schmullius, has already done the evaluation of all proposals and the final selection for the Plenary Programme will be announced at the IAF Spring Meetings.

IAC confirms its global relevance and international impact: more than 3400 abstracts were received from 78 countries for #IAC2017 !The submissions will be reviewed during the IAF Spring Meetings. Authors will receive their notification letters by mid-April 2017.



## What is at Stake in Space in 2017 and 2018?

The IAF produced this video on the different opinions of IAF Members on the topic "What is at stake in space in 2017 and 2018?". The video was presented at the IAF Symposium in order for United Nations COPUOS/STSC delegations to be informed of political, technological and legal challenges of the space scene at stake in 2017 and 2018 that are being considered by various space actors, space agencies, space industrial companies and other space organisations. The theme was aligned with the UNISPACE +50 endeavors and has thus contributed to the work of the experts groups under the Scientific and Technical Subcommittee.



<https://www.youtube.com/watch?v=L2cwqT2XTcs>

## Send us your video!

Your International Astronautical Federation is constantly working to offer new opportunities for all its members. We are working to promote your organization within the IAF Community and the global space scene! The online IAF Community wants to know you better. Send us your video! This could be in a form of a video interview by you or your Head of organization or even a slideshow video where you introduce your organization, explaining who you are, or what you do, or where you are, or what you look for, or why you are an IAF member, etc. Basically a video promoting yourself. Please do record your video in English. If not possible, please do add English subtitles. These videos will then be uploaded on [IAF website](#) and used mostly on IAF Social Media throughout the year ([Facebook](#), [YouTube](#), [Instagram](#), [Twitter](#), [LinkedIn](#)).

## In Memoriam: Our Dear Friend Orna Marie Orshan



It is with great sadness that the IAF has to inform about the tragic news that our esteemed colleague and dear friend Orna Marie Orshan passed away.

Orna was nominated to receive the IAF Distinguished Service Award at the upcoming Spring Meetings for her *"extraordinary dedication and commitment, in service of the Federation, in various functions and roles; as the first representative of the Israel Space Agency membership in several leading IAF Committees. With outstanding professionalism, talent, innovation, creativity and personal determination and devotion, overcoming many setback and obstacles, Orna brought the IAC 2015 to Jerusalem, Israel. The IAC 2015 Congress in Jerusalem contributed much to Israel's status within the global space community, highlighting Israel's scientific capabilities as a start-up nation"*.

Orna has been a strong independent voice, a source of great wisdom, and extraordinarily valuable IAF Committee Member. We will miss her.

**Baruch Dayan Emet / תמאה ןייד ןורב**





## 6<sup>th</sup> International Conference "Space Technology: Present and Future"



Within the period of May 23 – 26, 2017 Yuzhnoye SDO under the aegis of International Academy of Astronautics will hold 6<sup>th</sup> International conference «Space technology: present and future» in Dnipro, Ukraine.

The conference is dedicated to the 60th anniversary of the first artificial Earth satellite launch and the 80th birthday anniversary of Dr. Stanislav Konyukhov, a distinguished aerospace scientist, engineer and designer, who was General Designer – General Director of Yuzhnoye SDO in 1991-2010.

International space conference in Dnipro is a remarkable opportunity to discuss new trends in space rocketry and advanced developments, as well as new approaches to global space problems solution. Moreover, each of the participants will have a possibility to visit Yuzhnoye SDO and SE "PA "Yuzhnyi Machine-Building Plant" – legendary space enterprises.

Deadline for abstracts submission is March 31, 2017.

More detailed information on the conference can be found on <http://dpukrconfiaa.org/en/>

## Summer School Alpbach 2017 – The Dusty Universe July 18-27, 2017

This year, sixty European engineering and science students will be chosen to participate in the 41<sup>st</sup> Summer School Alpbach. The topic is "Dust in the Universe". Students will be informed about past achievements and current issues and will be invited to propose ideas to further explore the dusty Universe. 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 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, associate and cooperating states. 60 selected participants will be invited to attend.

Application Deadline: March 31, 2017

Online Application: [www.summerschoolalpbach.at](http://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.

→ **SUMMER SCHOOL ALPBACH 2017**  
**The Dusty Universe**  
 18 - 27 July 2017 | Alpbach/Tyrol – Austria  
 Details and further information: [www.summerschoolalpbach.at](http://www.summerschoolalpbach.at)

## Ukraine Celebrated 110<sup>th</sup> Anniversary of Sergei Korolev



Sergei Korolev is an outstanding design engineer and world famous scientist, who worked in the field of missile and space rocket technology. He was often referred to as the father of practical astronautics. 110 years ago Zhytomyr, a small provincial center in the Volhynian Governorate (now Ukraine) became the birthplace of the future rocket mastermind.

On 12<sup>th</sup> and then on 17-19<sup>th</sup> January 2017 the festive events organized on the initiative of the Sergei Korolev Space Museum took place in Zhytomyr and Kyiv. They included an official opening of a plaque in memory of Sergei Korolev in the airport near Zhytomyr, now bearing his name, meetings at the Sergei Korolev Space Museum and Zytomyr University, where S. Korolev's father used to be a teacher, special events at School 36 in Kyiv named after the Chief Designer, visit to Igor Sikorsky Kyiv Polytechnic Institute, where Sergei Korolev studied in the period between 1924 and 1926, and a round table at the National Academy of Sciences of Ukraine.



The most honoured and most expected guests during the celebrations were Sergey Korolev's daughter Natalia, members of the Korolev family, and Alexander Alexandrov, a cosmonaut and twice Hero of the Soviet Union. "The very word 'Ukraine' was pronounced with warmth and love in our family... My father spent 24 years, almost half of his life in Ukraine. I am very glad that people in Zhytomyr cherish the memory of my father", - shared Natalia Koroleva.



## TURKEY'S Electro-Optical Satellite GÖKTÜRK-1, Launched Successfully

Turkey launched GÖKTÜRK-1, the satellite developed to provide imagery for military and civilian purposes, via a Vega launch vehicle, from the European Space Center in French Guiana, on 5th of December, 2016. The launch ceremony, that took place

through a live event at 4:52 pm, was attended by President Recep Tayyip Erdoğan, and was organized by the Air Force Command and the Under-Secretariat for Defense Industries at Turkish Aerospace Industries Inc. (TAI) Premises.

GÖKTÜRK-1 is a high resolution earth observation satellite designed and developed for the Turkish Ministry of National Defence by Telespazio-Italy and Thales Alenia Space-France with technological participation of TAI, ASELSAN and ROKETSAN from Turkey.



## TAI Announced Selman Nas as the new Executive Vice President, Space Systems

TAI announced new management with the appointment of Selman Nas, PhD to head of TAI-SPACE. Dr. Nas, graduated from Istanbul Technical University-ITU, Aircraft Engineering branch on 1987. He completed his master degree and doctorate on Space and Aviation Engineering in Michigan University between 1989-1995. Dr. Nas worked in ITU-Space Engineering Department as Assistant Professor between 1995-2008. From 2008 to 2016, he worked in Turkish Airlines as President of Quality Assurance Department.

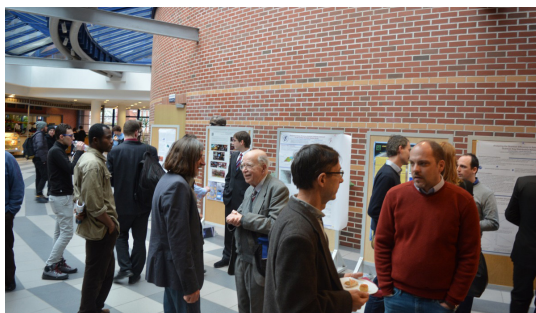
Dr. Nas, appointed as Executive Vice President, Space Systems of TAI in December, 2016.





**Hungarian  
Astronautical  
Society**

The Hungarian Astronautical Society (MANT), a civil association of space professionals and enthusiasts that represents Hungary in IAF, co-organised the 3<sup>rd</sup> International Conference on Research, Technology and Education of Space (H-SPACE 2017) on February 9–10, 2017. The event took place at the Budapest University of Technology and Economics. The main topic of the conference was integrated space systems, missions and concepts. The oral and poster presentations addressed scientific, technological and educational aspects of space research and space activities. The SpacePaprika workshop for young professionals between ages of 18–35 years was held immediately after the H-SPACE 2017 conference. This was a follow-up of our previous summer Space Academy in 2016 where the participants started to develop an experiment idea for the International Space Station. In February, we also continued the successful series of Space Academy Club events that offer interesting talks on a variety of space-related topics and a forum for open discussion.



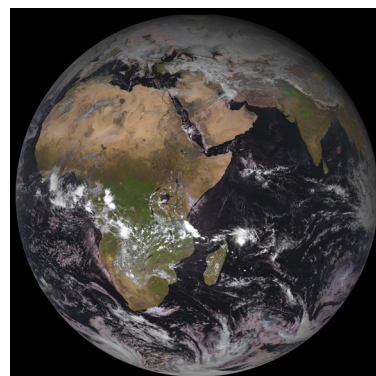
## Meteosat-7 to be decommissioned

After a record 20 years of operational service, Meteosat-7 (launched on 2 September 1997 under EUMETSAT's Meteosat Transition Programme) will be placed in a graveyard orbit on 11 April.

On 31 March 2017, the last Meteosat-7 images will be disseminated to users. The last image of the satellite will be taken on 3/4 April before a week of manoeuvres that will bring the satellite to its ultimate resting place. Decommissioning Meteosat-7 means the end not only of an exceptional satellite service record but also of the first generation of Meteosat satellites. Closeout activities for the programme will conclude at the end of 2017.

In the context of the World Meteorological Organisation's Integrated Global Observation System and in partnership

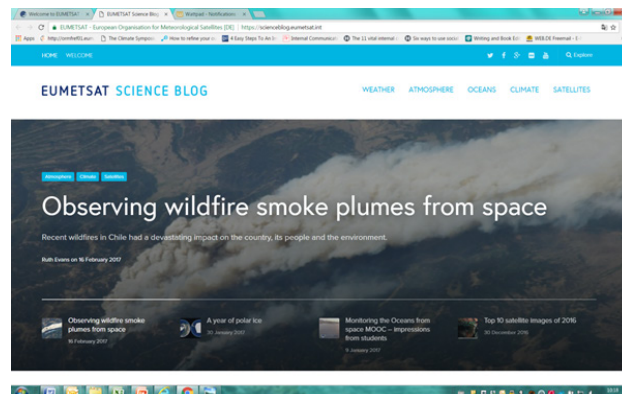
with India, Russia and China, EUMETSAT continues its best effort contribution to observations of the Indian Ocean from geostationary orbit with Meteosat-8.



## EUMETSAT launches new Science Blog

A new science blog from EUMETSAT presents the latest trends and developments in weather, ocean, atmospheric and climate science. Written for a general audience interested in scientific developments, the blog regularly highlights fascinating facts resulting from weather, climate, ocean and environmental monitoring.

<https://scienceblog.eumetsat.int/>



## Minecraft competition closes

On 28 February, EUMETSAT closed its Minecraft satellite-building competition for 6-16 year olds. The completion was organised as part of EUMETSAT's youth campaign carries out in cooperation with the European Commission's Copernicus Programme and the Intergovernmental Oceanographic Commission. The challenge was to either build the best Minecraft model of the Sentinel-3 or Jason-3 ocean-monitoring satellites, or to design a new ocean satellite and even an ocean monitoring system with satellites, buoys, automatic robots etc.

In total 76 contributions were received and the winners will be announced on **L-Zone**, EUMETSAT's youth education website towards the end of March.

## Getting the Most Out of Your Space Experience in Australia



When planning your travel to the IAC in Adelaide, we encourage you to include a visit to Canberra the following week. Canberra is home to the Canberra Deep Space Communication Complex (CDSCC) and the Advanced Instrumentation and Technology Centre (AITC), Australia's national space environmental test facility. Canberra's space capability will be showcased on the CBR Booth in the IAC Exhibition but there's nothing like experiencing it for yourself.

From the 2 October, key Canberra businesses and researchers will be available to meet with delegates and discuss collaboration opportunities. Visit CDSCC, the AITC, UNSW Canberra, Honeysuckle Creek and more...



A full description of Canberra's space capability can be found on the Invest Canberra website <http://www.investcanberra.com/opportunities/space,-satellite-and-spatial-science.aspx>

Tour and meeting details will be posted on the Invest Canberra website shortly. For travel information visit [www.visitcanberra.com.au](http://www.visitcanberra.com.au)



## Discover Australia's award winning Data Cube at IAC 2017

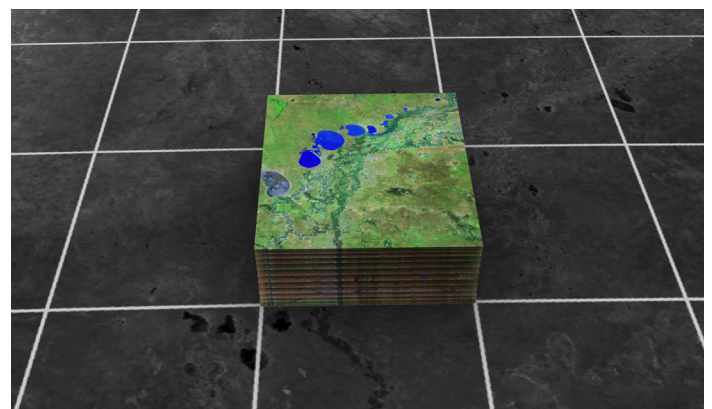
The **Australian Geoscience Data Cube** (Data Cube) is a world-leading data analysis system for satellite and other Earth observation data. This innovative technology unlocks the potential of the data, allowing countries to capitalise on their investments in launching and operating Earth observation satellites.

The Data Cube is a new approach for organising and analysing the vast quantities of data, making it quicker and easier to provide information on issues that affect us all. It is a system that can be utilised by governments, research and private industry.

The potential of Australia's Data Cube for the global geospatial industry has been recognised on the international stage, being awarded Content Platform of the Year for 2016 at January's Geospatial World Leadership Awards in India.

The technology at the heart of the Data Cube is entirely open source and is beginning to foster an international community. Through partnerships with the international Committee on Earth Observation Satellites (CEOS), the technology has already been adapted and is being implemented in Cameroon, Colombia, Vietnam and Kenya.

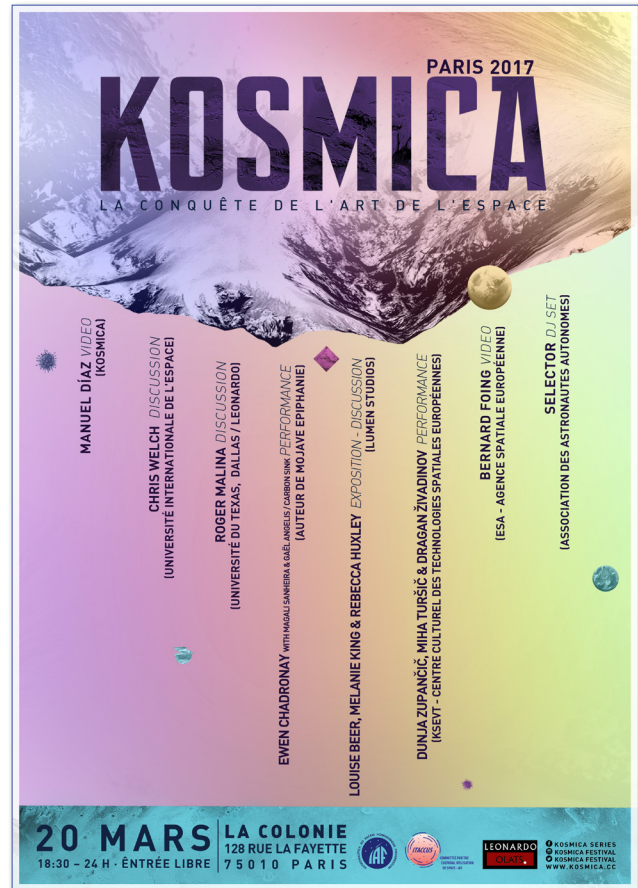
Learn more about Australia's Data Cube at the Australian Government booth at the 68th International Astronautical Congress 2017 in Adelaide. Further information is available via the website: <http://www.datacube.org.au/>



## Committee for the Cultural Utilisation of Space (ITACCUS)

**KOSMICA** is a popular series of events and festivals worldwide. With over 20 editions and 150 guests from every corner of Earth, we bring together the cosmically curious and culturally quirky space community for a social mix of art and outer space programs: film screenings, performances, concerts, workshops, talks and debates about the alternative and cultural uses of outer space.

This edition of KOSMICA in Paris will present the work of various members of the Committee for the Cultural Utilisation of Space (ITACCUS) of the International Astronautical Federation (IAF). Members of this committee have advocated for the importance of artists in their organisations and others have independently founded their own. KOSMICA will present a series of projects with an evening of performances, video, talks and music at La Colonie to celebrate the rise of the arts in space.



## KOSMICA Paris 2017 Lineup

### Roger Malina

University of Texas at Dallas / Leonardo

### Chris Welch

International Space University

### Bernard Foing

European Space Agency

### Dunja Zupančič, Miha Turšič & Dragan Živadinov

Cultural Centre of European Space Technologies (KSEVT)

### Ewen Chardronnet (with Magali Sanheira & Gaël Angelis / Carbon Sink)

Author of Mojave Epiphanie

### Manuel Díaz

KOSMICA

### Louise Beer, Melanie King & Rebecca Huxley

Lumen Studios

### DJ Selector

Association of Autonomous Astronauts

**20 March**

**6.30pm - 8.30pm**

**La Colonie**

**128 rue Lafayette**

**75010 Paris**

## Interview with Dr. Pascale Ehrenfreund



*Dr. Pascale Ehrenfreund, IAF Vice President of Communications, Publications and Global Conferences, Chair of Executive Board, German Aerospace Center (DLR)*

**1. Five years after the first IAF Global Space Exploration Conference in 2012 in Washington, the space exploration community has certainly made a major step forward, why do you think GLEX 2017 is timely and relevant now?**

When discussing about space exploration, GLEX 2017, will be the event to attend. We expect scientific representatives from around the world to come, meet, exchange views on the latest developments in the field. We will have session that

will cover scientific and technology activities, as well as public awareness related to space exploration.

GLEX 2012 has underlined that international cooperation is very important in space exploration. Today, we work together for the benefits of all stakeholder communities. There is not only one rationale for space exploration, but several, such as scientific, societal, economic and educational rationales that are all interlinked. At GLEX 2017 goals and objectives in space exploration may be reviewed and debated. Therefore, GLEX 2017 provides an excellent occasion to discuss developments in space exploration and the way ahead.

**2. What are the main distinctive features of GLEX 2017 in Beijing that will make it special?**

GLEX 2017 will address the whole range of topics that are



*More info at [www.glex2017.org](http://www.glex2017.org)*

important in international space exploration: science and technology, politics and economics, education and inspiration. It will gather a very broad audience from research organisations, industry, as well as renowned experts in research, technology development and education.

**3. What kind of essential issues will be explored at GLEX 2017?**

We expect to be able to discuss the amazing results of international missions to the Moon, Mars and other destinations etc. GLEX 2017 will also discuss current challenges and innovative solutions as well as plans for future missions.

**4. Why is it important to attend such a forum for exchange of experiences in space exploration?**

Participants to GLEX 2017 will have the opportunity to discuss developments and current issues of space exploration first hand with experts from around the world. Different types of sessions such as Plenaries, Technical Sessions, Key Note Lectures and Global Networking Forum Sessions will provide substantial insights in ongoing activities for each stakeholder.

## Interview with Mr. Dengyun Yu



*Mr. Dengyun Yu, IAF Vice President Societies and Museums, Deputy Director Scientific and Technological Steering Committee, China Aerospace Science and Technology Corporation (CASC)*

**1. What does it mean for China to host GLEX 2017?**

GLEX 2017 will be held in China. It's not only an important way of China actively participating in international space exchanges, but also a reflection of IAF and international community' high trust to China. For China's space community, this is an opportunity to expand international cooperation and exchange to achieve win-win results, as well as a platform to display ourselves.

On one hand, opening up is the basic national policy of China. As an important part of the opening

up, China's space industry needs to move global, strengthen exchanges with international counterparts, introduce achievements and future plans and find new opportunities

for cooperation. The cooperation can be either technical or commercial, both of which provide us with a chance to display ourselves. Space exploration is the common cause of all mankind. It has always been the pursuit of China's space industry to strengthen cooperation, to achieve the win-win situation, and to jointly promote the sustainable development of space technology.

On the other hand, with the development of China's space industry in recent years, international counterparts also hope to understand China's space program in-depth and look for cooperation opportunities. However, due to various factors, the international space community's understanding of China's space program is not comprehensive and sufficient. GLEX 2017 provides the international community not only a rare opportunity to understand China and China's space program, but also a platform to promote exchanges and cooperation.

We have prepared the conference in good order. We warmly welcome space professional all over the world to Beijing to attend the event. At the same time, we hope that through our joint efforts with the IAF, GLEX 2017 will be a complete success

and significant event that promotes international cooperation and space technology innovation.

## **2. What are the key objectives of China on space exploration for the years to come?**

Deep space exploration is always a magical and attractive topic to everyone. It can not only help to promote the progress of space technology, but also help to answer major scientific questions like how the universe is formed and the origin and future of humankind. The value of the exploration is to inspire world's space science workers including those of China to overcome difficulties and make progress. It is the exploration of the unknown world; the pursuit of unknown areas; the expansion of unknown science of all humankind.

China, as a developing country, starts late in deep space exploration compared to developed countries. With the enhancement of national strength, China has carried out many deep space exploration activities since the beginning of the 21<sup>st</sup> century by starting with lunar exploration. So far, the implementation of all five missions was a complete success. In 2007, Chang'E-1 successfully completed lunar exploration; in 2012, Chang'E-2 successfully flew over the Toutatis asteroid; in 2013, Chang'E-3 achieved soft landing on celestial bodies for the first time of Chinese spacecraft and completed the surface inspection on the moon; in 2014, the re-entry test flight of Chang'E-5 was successful, marking China fully grasped the key technology of re-entry at a speed close to the second universe speed.

At the beginning of this year, the International Asteroid Center of the International Astronomical Union (IAU) named the No.456677 asteroid after "Ye Peijian", Chief Designer of Chinese first lunar exploration satellite (Chang'E-1). This is not only recognition of Chinese scientist Ye Peijian, but also a compliment of the international community to the achievements of Chinese deep space exploration technology.

Recently, the Chinese government has promulgated "the thirteenth five-year plan for national scientific and technological progress". The plan gives priority to the development of six major scientific and technological innovation projects including deep space exploration by the year of 2030, reflecting the great importance that the country attached to the deep space exploration industry.

For the next five years, master plans of Chinese deep space exploration are: (1) to launch the Chang'E-5 detector around 2017 for regional soft landing and sampling return which are important to lunar exploration and deep space exploration; (2) to launch the Chang'E-4 detector around 2018 for the first soft landing on the far side of the moon of humankind; (3) to launch the first Mars detector around 2020 to implement a combined prospection of circling and inspection. In the meantime, China will further carry out the demonstration of follow-up lunar exploration plannings, to lay a foundation for the ability of landing on entire surface of the moon and establishment of lunar research base, to tackle key problems of Mars sample returning, asteroid detection, across-detection of Jovian System and other planet, and to provide technical support to implementation of

a sustainable development of deep space exploration activities. Deep space exploration activities are inseparable from the development of rocket technology. "Long March-5", Chinese large launch vehicle and the "Big Mac" of existing world's large thrust rockets, has been successfully launched which meets the needs of building space station and deep space exploration for a long period of time. To further participate in deep space exploration programs, China will continue to develop heavy launch vehicles.

## **3. What themes does CSA intend to highlight at GLEX 2017?**

**CSA intends to highlight two themes: one is to share, and the other is to cooperate.**

**GLEX 2017 will be a platform on which the world space professionals will share the latest technical results.**

To develop space technology to explore the mysteries of space and develop space resources is the common pursuit of mankind. In Recent years,China's space industry has witnessed rapid progress manifested by markedly enhanced capacity in independent innovation and access to outer space, constant improvement in space infrastructure, smooth implementation of major projects such as manned spaceflight, lunar exploration, the Beidou Navigation System and high-resolution earth observation system, and substantial achievements in space science, technology and applications. At the same time, the international deep space exploration activities are active and many countries are seeking new ways and new technology. The world space activities are prosperous.

As the local organizer and the most representative NGO of China's space community, on the one hand, CSA will mobilize and coordinate our institutional members to submit paper abstracts, organize themed events, and arrange technical visits to show to and share with the world China's space achievements and learn the advanced experiences from other countries. On the other hand, CSA will support U.S. and European countries to organize themed events during the conference to share their latest technical results. We hope that the world space professionals will gather together to exchange ideas and inspire each other for the common development.

**GLEX 2017 will be a platform for international cooperation.**

Space technology is one of the high techs. One the one hand, it involves high cost and huge risk. No country can develop it by itself. On the other hand, it economic, technical and social effects are wide and profound. Only through cooperation, the resources and intelligence can be mobilized, the burden can be reduced and the risk of development and operation can be reduced. Only through cooperation, all parties can share the technical results very well for the common development and for the benefit of human society. The world space community has reached a consensus to strengthen international exchange and cooperation for the purpose of peaceful utilization of the outer space and for the benefits of mankind.








GLEX 2017 will organize plenary, keynote, global networking forum, technical sessions to promote the exchange at academic level. At the same time, the space agencies, companies and organizations will carry out bilateral, multilateral meetings to seek potential opportunity of cooperation. GLEX 2017 will

be a significant event in which the world space professionals share the latest technological results, establish friendship, and carry out all-round and multilevel cooperation for the common development.



## IAF Social Media presence has increased, we are now also on Pinterest!

Please follow the latest updates, news, and conversations within the IAF community on:

-  <https://www.facebook.com/iafastro/>
-  <https://twitter.com/iafastro>
-  <https://www.flickr.com/photos/iafastro>
-  <https://instagram.com/iafastro/>
-  <https://www.youtube.com/user/iafastro>
-  <https://www.linkedin.com/groups/79867>
-  [https://fr.pinterest.com/iaf\\_astro/](https://fr.pinterest.com/iaf_astro/)

Did you like the #IAFDiversityWeek ? Send us your idea for new hashtags at [media@iafastro.org](mailto:media@iafastro.org)



The next newsletter will be issued in May 2017