74th INTERNATIONAL ASTRONAUTICAL CONGRESS

2-6 OCTOBER 2023
BAKU, AZERBAIJAN

FINAL PROGRAMME

PUBLIC, PLENARY & IAF GNF PROGRAMME
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Baku Convention Complex
Exhibition Pavilion, stand #418

Meet a multinational team of young professionals from the Intersputnik Member Countries and discover the paintings of young Azerbaijani artists at our stand.

The presentation of the art works will take place on 2 October 2023 from 13:10 till 13:40.

Please confirm your participation in the presentation via e-mail event@intersputnik.int by 20 September 2023.
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Meet us at Booth #206
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**Floor plans**

**Baku Convention Complex**

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**IAF Alliance Programme Partners 2023**
1 Congress at a Glance

Please Note:

*By invitation only; Pre-Congress events as well as the IISL Moot Court are dedicated to the respective participants
### Plenary and IAF GNF Programme at a Glance

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*Upon Invitation Only*
3 Daily Congress Programme

Monday 2 October

9:00 - 9:45 VIP Gathering

10:00 - 11:30 Opening Ceremony

Location: BCC Auditorium

Master of Ceremonies

Nargiz BIKE-PITERSON
Vice President, Regional General Counsel, Growth and Emerging Markets, Takeda, United Arab Emirates

Speakers:

Christian FEICHTINGER
Executive Director, International Astronautical Federation (IAF), France

Yuval HARARI
Historian and History Teacher, Hebrew University of Jerusalem, Israel

Anthony TSOUGRANIS
VP, Honours and Awards, IAF, United States

11:30 - 12:00 Opening Exhibition/Ribbon cutting/VIP Tour

Location: Exhibition Pavilion, Baku Convention Complex

12:30 - 13:30 VIP Luncheon (upon invitation only)

Location: Federation’s Terrace, Baku Convention Centre

Sponsored by:

Allianz MiCcol

Welcome Remarks
Clay MOWRY
President, International Astronautical Federation (IAF), United States

Speakers:

Tommaso BANDERA
Senior Operations Manager, Allianz MiCcol Milan, Italy

Erasmo CARRERA
President, Italian Association of Aeronautics and Astronautics (AIDAA), Italy

Claudio TASSURU
Italian Ambassador to Azerbaijan, Italy

13:45 - 15:15 Plenary 1 – One-To-One With Global Space Leaders

Location: Heydar Aliyev Center (HAC) Auditorium

Master of Ceremony

Christian FEICHTINGER
Executive Director, International Astronautical Federation (IAF), France

Opening Welcome

Samadin ASADOV
Chairman of the Board, Azercosmos Space Agency of the Republic of Azerbaijan, Azerbaijan
16:25 - 17:20  
**IAF GNF – International Lunar Research Station – International Science Project**  

**Location:** Heydar Aliyev Center (HAC) Auditorium  

The ILRS is a scalable and maintainable comprehensive scientific experiment facility proposed by China and jointly built by many countries, and operates autonomously on the lunar surface and lunar orbit for a long time, with short-term manned participation. It has the ability to support energy supply, central control, communication & navigation, space-earth round trip, lunar scientific research and ground support, and continues to carry out multidisciplinary, multi-target, large-scale scientific and technological activities such as scientific exploration and research, resource development and utilization, and cutting-edge technology verification.  

For this reason, we provide for details of series of cooperative opportunities for all interested international partners in the phases of the plan, demonstration, design, development, implementation, operation and scientific research of ILRS project during the event. Within speeches, we invite all interested international partners to cooperate in ILRS and contribute more for the peaceful exploration and use of Moon in the interests of all humankind, adhering to the principles of equality, openness and integrity.  

**Organized by:**

**Speakers:**

Qiong WANG  
Lunar Exploration and Space Engineering Center, Deputy Chief Designer of CLEP Chang'e-8 mission, China National Space Administration (CNSA), China  

Xiangyu XI  
Engineer Of System Research Institute, Deep Space Exploration Laboratory, China  

Serdar Hüseyin YILDIRIM  
Chairman Of The Board and President, Turkish Space Agency (TUA), Türkiye  

Dengyun YU  
Deputy Director of the Science and Technology Committee, China Aerospace Science and Technology Corporation, China  

Thomas ZURBRUCHEN  
Professor and Director of Space Programs, ETH Zürich, Switzerland  

Lei WU  
Producer and Senior Space Correspondent, CGTN, China  

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15:30 - 16:15  
**IAF GNF – Towards A Zero Debris Future**  

**Location:** Heydar Aliyev Center (HAC) Auditorium  

This panel is driven by the shared concern about the continuing degradation of the outer space environment which puts space activities evermore at risk and, consequently, the need for more ambitious actions on space debris mitigation and remediation from all stakeholders. Heads of agencies are invited to highlight their views and measures on space safety and sustainability. The goal of the panel would be to identify collective efforts of a community of proactive actors towards jointly defined ambitious, meaningful and measurable targets by 2030. ESA’s recently announced zero-debris charter will be introduced and discussed as a vehicle to drive joint ambitions in this field.  

**Organized by:**

**Speakers:**

Nolger KRAG  
Head of Space Debris Office, European Space Agency (ESA), Germany  

Pam MELODY  
Deputy Administrator, National Aeronautics and Space Administration (NASA), United States  

Michael NICOLLS  
Vice President Starlink Engineering, SpaceX, United States  

S. SOMANATH  
Chairman, Indian Space Research Organisation (ISRO), India  

Hiroshi YAMAKAWA  
President, Japan Aerospace Exploration Agency (JAXA), Japan  

MODERATOR  
Quentin VERSPIEREN  
PROTECT Accelerator Coordinator, European Space Agency (ESA), France  

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17:30 - 18:15  
**IAF GNF – Maturing Space Investment**  

**Location:** Heydar Aliyev Center (HAC) Auditorium  

Investors around the globe are enabling new space capabilities, from launch facilities to satellite services to human activities on-orbit. As start up space companies mature and government space budgets grow, institutional investors are targeting space opportunities, considering use cases across commercial, civil and national security communities. This panel brings together perspectives on very substantial investments in space now and in the future.
18:15 - 19:15 Plenary 2 – Space 2030: Policies And Strategies In Global Space Economy

Location: Heydar Aliyev Center (HAC) Auditorium

The National Space Policy aims to enhance the space sector’s contribution to the national economy and promote the regional and international presence of the space agencies.

The policy sets the general framework for countries’ space industry and activities for the years leading up to 2030, including government activities related to space, commercial activities, scientific activities carried out by the public and private sectors and academic institutions and research and development centres.

Space presents significant opportunities in space ecosystem, space economy, contributing to the use of space science and technology as invaluable tools to help implement the SDGs as well.

There are already many tangible changes and challenges to the traditional ways of conducting space activities, with many new actors entering the field and new technologies affecting our efforts. Today, national and regional space agencies are working to extend the knowledge of space, and apply space science and technology to improve the lives of people worldwide.

The panel discussions will cover policy discussions on emerging space affairs issues and continue engaging with stakeholders to support and promote dialogue among governments, industry and the private sector, academia and society to effectively tackle challenges and address changes in the space ecosystem.

Speakers:

Samaddin ASADOV
Chairman of the Board, Azercosmos Space Agency of the Republic of Azerbaijan, Azerbaijan

Olshabelov MALIK
Vice-Minister, Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan, Kazakhstan

LvI ORON
Director, Israel Space Agency (ISA), Israel

Serdar Hüseyin YILDIRM
Chairman of The Board and President, Turkish Space Agency (TUA), Türkiye

MODERATOR
Dunay BADIRKHANOV
Vice-Chairman, Azercosmos Space Agency of the Republic of Azerbaijan, Azerbaijan

19:30 - 22:00 Welcome Reception

Location: Heydar Aliyev Center (HAC), Lobby & White Garden

Starts at 19:30 and will be held at the Heydar Aliyev Center ground floor. The programme includes speeches by Azercosmos and IAF, musical performances, cultural showcases by different performers, as well as appetizers and beverages service.
Tuesday 3 October

09:00 - 10:00
Plenary 3 – Infrastructures From LEO To Moon Surface: The Commercial Side Of Exploration

Location: Heydar Aliyev Center (HAC) Auditorium

Space is now more and more accessible. The next logical step is to make it also affordable and sustainable. The goal is to build a thriving commercial ecosystem, enriched by a variety of players and infrastructures.

The panelists for this session represent the diversity of approaches and objectives that have been emerging in the realm of Commercial Space Exploration. The market is still in its infancy and several entities are bravely investing to grow it as they venture in LEO, on the Moon… and soon even beyond.

Speakers:
- Dana BAKI, Chief Commercial Officer, The Exploration Company, United Arab Emirates
- Manfred JAUMANN, Head of Low Earth Orbit and Suborbital Programs in Space Systems, Space Exploration, Airbus Defence and Space GmbH, Germany
- Christian MAENDER, Executive Vice President of In-Space Solutions, Axiom Space, LLC, United States

10:15 - 11:15
IAF GNF – Overcoming Adversities: Navigating Through Challenging Times

Location: Heydar Aliyev Center (HAC) Auditorium

A deep dive into the firsthand experiences of leaders shedding light on their unique strategies and personal journeys of resilience during tumultuous periods.

Organized by:
- Valeriya BARASHKOVA, Co-founder, Aerospace Capital, Russia
- Manny SHAR, Managing Director, Orbit Fab, United Kingdom
- Sita SONTY, CEO, Space Tango, United States
- Dylan TAYLOR, Chairman and CEO, Voyager Space Holdings, United States

11:25 - 12:20
IAF GNF – Destinations In Low Earth Orbit, Sustaining Vital Research, Commerce, Exploration Through Private Space Stations

Location: Heydar Aliyev Center (HAC) Auditorium

With a planned decommissioning of the International Space Station (ISS) in 2030, it is a matter of urgency that space agencies and commercial industry promote private space stations and laboratories. Turning concepts into a concrete reality is now a priority.

Investors, Legal Experts, space agencies, and launch providers will discuss the importance of stimulating the efforts, pooling the resources, and preparing the infrastructure necessary for maintaining a human presence in Low Earth Orbit.

Speakers:
- Marcia BARKSCHOW, Voyager Space Holdings, United States
- Manny SAVA, United Arab Emirates
- Sita SONTY, CEO, Space Tango, United States
12:30 – 13:30 Industry Luncheon (Upon Invitation Only)

Location: Federation’s Terrace, Baku Convention Centre

Sponsored by:

VOYAGER SPACE

SPONSOR KEYNOTE

Speaker:

Jeffrey MANBER
President of International & Space Stations, Voyager Space Holdings, United States

WELCOME REMARKS

Clay MOWRY
President, International Astronautical Federation (IAF), Chief Revenue Officer, Voyager Space Holdings, United States

EXCELLENCE IN INDUSTRY AWARD CEREMONY

WELCOME REMARKS

Andreas LINDENTHAL
VP: Financial Matters and Industry Relations, IAF Bureau, Germany

Awardee:

Cheryl REED
Founder & CEO, Astroscale, Japan

13:45 - 14:45 Plenary 4 – The Era Of Lunar Exploration Has Begun

Location: Heydar Aliyev Center (HAC) Auditorium

In the early morning hours of November 16, 2022, the massive Space Launch System (SLS) core stage and solid fueled boosters erupted to life to launch the first human-rated spacecraft to the moon in almost 50 years. After a series of perfectly timed burns, the uncrewed Orion separated from its SLS booster after less than two hours on a path to lunar orbit. This marked the beginning of the Artemis program and ushered in a new era in space exploration and this is just the beginning!

This proposal for an Exploration Plenary features robotic and human astronomical activities under way that are focused on exploration beyond Earth. Artemis-1 was the first in a series of increasingly complex missions that will enable human exploration to the Moon and Mars. The primary goals for Artemis-1 were to demonstrate Orion’s systems in a spaceflight environment and ensure a safe re-entry, descent, splashdown, and recovery prior to the first flight with crew on Artemis II.

This plenary will discuss the beginning of the Artemis program and how future exploration objectives will be achieved. The panel will address lunar missions and how technology and infrastructure enables interoperable global lunar utilization where industry and international partners can maintain continuous robotic and human presence on the lunar surface. The panel will also touch on Artemis science accomplishments and future plans to address high priority science questions that are best done by on-site human explorers on and around the Moon and Mars, aided by surface and orbiting robotic systems.

Speakers:

Sharmila BHATTACHARYYA
Program Scientist for Space Biology in the Biological and Physical Science Division, National Aeronautics and Space Administration (NASA), United States

James FREE
Associate Administrators for Exploration Systems Development Mission Directorate (ESMD), National Aeronautics and Space Administration (NASA), United States

Hiroshi SASAKI
Director General for Human Spaceflight Technology Directorate, Japan Aerospace Exploration Agency (JAXA), Japan

MODERATOR

Najoud MERACY
Lead for Exploration Systems Development Mission Directorate, National Aeronautics and Space Administration (NASA), United States

15:00 - 15:55 IAF GNF – Enabling Science And Exploration In Deep Space - Partnership And Infrastructure Opportunities

Location: Heydar Aliyev Center (HAC) Auditorium

This session will explore the transformative impact of deep space infrastructure on science and exploration. Building on the global Artemis program’s momentum, numerous commercial companies are investing in the development of essential infrastructure to support and enhance lunar science and exploration missions. These companies intend to provide commercial services ranging from communication and navigation to mobility and power supply. At the same time, advanced scientific payloads are being developed across a diverse range of organizations.

This session will discuss how novel commercial services support much greater capability for lunar exploration and scientific endeavors, and the way these innovative business models will pave the way for the sustainable exploration of Mars and beyond, enabling...
scientific payloads to leverage the expanding infrastructure capabilities. The discussion will highlight a new and important area where scientists, government space agencies and commercial industry are working together to achieve common goals.

Organized by: LOCKHEED MARTIN

Speakers:

Ramon BLANCO
US Head of Space, Added Value Solutions (AVS), United States

A. C. CHARANIA
Agency Chief Technology Officer, National Aeronautics and Space Administration (NASA), United States

Daniel SCHEERES
Distinguished Professor, Colorado Center for Astrodynamics Research, University of Colorado, United States

Aude VIGNELLES
Chief Technology Officer, Australian Space Agency, Australia

MODERATOR
David THOMAS
Executive Director, MISO Space Science Institute, United States

16:05 - 16:50 IAF GNF – Space, Spectrum, And Sustainability: Pillars For Connecting People On Earth

Location: Heydar Aliyev Center (HAC) Auditorium

This would be a 45-minute moderated fireside chat discussion around space spectrum and sustainability considerations and on the positive impacts of space-based communications to people on Earth.

Organized by: Amazon

Speakers:

Yohann BENARD
Head of EU Digital and Connectivity Public Policy, Amazon, France

Aartti HOLLAR-MAINI
Director, United Nations Office for Outer Space Affairs (UNOOSA), Austria

Jorge CICCOROSSI
Senior Engineer, Space Systems Coordination Division, International Telecommunications Union (ITU), Switzerland

MODERATOR
Audrey L. ALLISON
Project Lead, Center for Space Policy and Strategy, The Aerospace Corporation, United States

17:45 - 18:45 Highlight Lecture – Pioneering A Sustainable Earth-Moon Ecosystem: The ispace Journey To The Moon

Location: Heydar Aliyev Center (HAC) Auditorium

Speakers:

Yoshitsugu HITACHI
Lander System Engineering Group Manager, ispace, Japan

Janicke WOLLERS
Spacecraft Operations Engineer, ispace, Japan

INTRODUCTION
Takeshi HAKAMADA
Founder & CEO, ispace, Japan

19:00 - 21:00 Young Professionals Networking Event (restricted to Young Professionals)

Location: Heydar Aliyev Center (HAC), Hall C

Join us for the opportunity for speed mentoring with industry leaders about how to navigate your career. Networking and reception will follow.

Sponsored by: Astroscale

19:00 - 21:00 IAC 2024 Launch Reception (By invitation only)

Location: Heydar Aliyev Center (HAC), White Garden
Psychological Safety: A Foundation for DEIA

We know from research that diversity is necessary and yet insufficient to have the most productive, creative teams. Psychological safety is a critical component for ensuring all team members speak up, voice their ideas, or raise a red flag is something is wrong. As part of its Diversity, Equity, Inclusion and Accessibility (DEIA) Strategy, JPL has identified the need for increased psychological safety in our teams, particularly our flight projects, to ensure we achieve our missions successfully. In this session, you will learn what psychological safety is and how to create it.

Sponsored by:

JPL
Jet Propulsion Laboratory California Institute of Technology

Keyur Patel
Director for Astronomy and Physics, Jet Propulsion Laboratory (JPL), United States

9:00 - 10:00
Plenary 5 – Emerging Technologies On Natural Disaster Detection - Turkey Syria Earthquake And Remote Sensing Applications

Location: Heydar Aliyev Center (HAC) Auditorium

On the morning of February 6, 2023, Turkey and Syria woke up with a completely different dream. A natural nightmare. 7 hours after the nightmare was over, another nightmare occurred. More than 40,000 people lost their lives in two major earthquake disasters with magnitudes of 7.8 and 7.5. More than 100,000 people were left homeless and 10 different cities in Turkey were severely affected. The whole world was united with Turkey/Syria and a lot of material and moral assistance was provided. Undoubtedly, the wounds of this disaster will be hard to heal. As humans heal post-disaster wounds, we, as the space practitioners, must come up with ideas to mitigate the worst effects of disasters in the future. Therefore, this panel at IAC2023 will discuss how space technologies can contribute to natural disasters like this, by influencing the effects of Turkey/Syria Earthquake. The panel evaluates the earthquake as a “case study” and identifies the lesson learned and the expected improvements. Invited panelists from different backgrounds will evaluate the current and future status of projects in the Earth observation technologies such as image processing, early warning systems, remote sensing applications, artificial intelligence and communication practices. In addition, the moderator will manage the panel interactively with various aspects such as technological, socio-economic, socio-cultural and next generation perspectives. Therefore, this panel will create awareness for the Turkey/Syria earthquake, strengthen inter-institutional collaborations, motivate future generations and create an inspiration at the IAC2023. Topics covered in this panel can also be presented at other international events such as COP28, in Dubai.

Speakers:

Luca DELL’ORO
Chief of the Disaster Risk Management and Climate Resilience Section, United Nations Satellite Centre (UNOSAT), Switzerland

Rene GRIEBACH
Regional Manager Pre-Sales in Europe, Middle East and Africa, Planet, Germany

Karen ST. GERMAIN
Director for Earth Science, National Aeronautics and Space Administration (NASA), United States

Daria STEPANOVA
CEO & Co-founder, AVMNO GmbH, Germany

Ozan KARA
Senior Researcher, Propulsion Research Section, Middle East Technical University, Turkey

Rene GRIEBACH
Regional Manager Pre-Sales in Europe, Middle East and Africa, Planet, Germany

MODERATOR
Karen ST. GERMAIN
Director for Earth Science, National Aeronautics and Space Administration (NASA), United States
The findings from these experiments will support the development of suitable living conditions for humans in space colonies on the Moon and Mars. Additionally, Dr. Bader Shirah's team from Nebula Research and Development Company developed six experiments on human research, focusing on adaptation during spaceflights, brain impact assessments, and effects on human health in space. Over 12000 Saudi students actively participated in ISS outreach experiments to enhance their understanding of space science and its potential for improving life on Earth.

This GNF session will include scientists and astronauts directly involved in SSA-HSF1 to discuss the experiments from the perspectives of the primary investigators, astronauts' execution, and students' outreach, as well as the research outcomes and impacts.

CMSA welcomes your participation in the event!

Organized by: SSA & Research Centre, King Faisal Specialist Hospital & Research Centre, Saudi Arabia

Khalid S. ARU KHABAR
Researcher, 4 Cell Science Experiments, King Faisal Specialist Hospital & Research Centre, Saudi Arabia

Wijdan AHMADI
Researcher, 4 Cell Science Experiments, King Faisal Specialist Hospital & Research Centre, Saudi Arabia

Ahmed AL GHOFAILI
Sector Head – Space Exploration and Science, Saudi Space Agency (SSA), Saudi Arabia

Bader SHIRAH
Researcher, 6 Nervous System Experiments, King Fahd University for Petroleum and Minerals, Saudi Arabia

Ashraf FARAHAT
Researcher, Cloud Seeding Experiment, King Fahd University for Petroleum and Minerals, Saudi Arabia

MODERATOR
Volanathan MUNSAMI
Deputy CEO, Saudi Space Agency (SSA), Saudi Arabia

Hong YANG
Chief Designer, Chinese Space Station, China

Lei WU
Producer and Senior Space Correspondent, CGTN, China

Qiao ZHANG
Researcher, China Academy of Space Technology, China

Nicolas PRODUIT
Research Scientist, University of Geneva Astronomy Department, Switzerland

Congmin LYU
Deputy Chief Designer of Space Utilization System of Overseas the Space Program, Chinese Academy of Sciences, China

MODERATOR
Linqi ZHU
Director of Asia Pacific Office, IAF Select Committee on Satellite Commercial Applications, China

Location: Federation’s Terrace, Baku Convention Centre

12:30 - 13:30 IAF IDEA 3G+ Diversity Luncheon (Upon Invitation Only)

A distinguished panel will discuss various aspects of the China Space Station, including overall scheme, building process, technical performances, vision of space science and research facilities etc. CMSA has also prepared to tell the story of Tiangong and its willingness to strengthen communication with global partners. How can commercial spaceflight inject new vitality and bring inspiration to human spaceflight will be discussed.

China will continue to adhere to the development concept of openness and sharing, and carry out more and deeper pragmatic cooperation with countries and regions committed to the peaceful utilisation of outer space. China Space Station is destined to benefit all human beings.

CMSA welcomes your participation in the event!

Organized by:

Speakers:

11:25 - 12:20 IAF GNF – China Space Station Benefits Global Space Exploration

Location: Heydar Aliyev Center (HAC) Auditorium

The in orbit construction of China's Tiangong Space Station has been successfully completed in 2022, marking the commencement of a new phase focused on application and development that will span over a decade. This presents a historic opportunity to conduct large-scale and systematic space research with human participation.

The space station features a basic three-module configuration consisting of the core module, Tianhe, and two lab modules, Wentian and Mengtian. It is designed to be a versatile space lab, capable of accommodating 25 experiment racks as well as exposed platforms for scientific exploration. Tiangong supports research in space life science and human research, microgravity physics, space astronomy and earth science, space new technology and application etc. Hundreds of thousands of experiments will be rolled out as planned.
**AWARDEE**

**Colegio Federado de Ingenieros y Arquitectos de Costa Rica (CFIA)**

“Joining Central American young, women, and indigenous peoples in Space through first Central American space project”

**Marco Antonio ZÚÑIGA**
President of the General Board of Directors, Colegio Federado de Ingenieros y de Arquitectos de Costa Rica (CFIA), Costa Rica

**L’SPACE NASA Proposal Writing and Evaluation Experience (NPWEE) Project**

“For recruiting and preparing a multigenerational and diverse space sector workforce while innovating over 100 new technologies”

**Sheri Klug BOONSTRA**
Principal Investigator, NASA’s L’space Student Pipeline and Competency Enabler (LSPACE) Program, United States

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**13:45 - 14:45 Plenary 6 – Strategic Direction Of Emerging Space Nations**

**Location:** Heydar Aliyev Center (HAC) Auditorium

Space is vast and becoming an important tool in advancing the developmental agendas of emerging space nations. We are at an era where space programmes of emerging space nations are receiving similar priority from national decision makers as that of space faring nations. What has changed?

In this session we will discuss why the chosen countries have ventured into space and why their governments are rallying behind them. The interesting question we need answered is “Why are emerging nations suddenly giving space a chance?” The speakers will further share with us the global relevance of their national programmes. Furthermore, we will understand whether there is a common strategic drive within emerging space nations or whether their efforts are unique in nature.

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**15:00 - 15:30 IAF GNF – Going For Humanity: Creating A Responsible And Sustainable Universe**

**Location:** Heydar Aliyev Center (HAC) Auditorium

As we prepare to explore more of the solar system than ever before, how we go is just as important as what we do when we reach our destination. NASA Deputy Administrator Pam Melroy will discuss how NASA is considering the ethical, legal, and social implications of performing future missions to explore the Moon, Mars, and beyond.

**Speaker:**
**Pam MELROY**
Deputy Administrator, National Aeronautics and Space Administration (NASA), United States

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**15:40 - 16:20 IAF GNF – International Perspectives On Championing The Role That Space Places In The World**

**Location:** Heydar Aliyev Center (HAC) Auditorium

As space sector professionals, students and enthusiasts, we’re used to passionately talking to each other about space, and its many benefits.

We’re well-versed in the multitude of ways that we use space - including using space applications to help us monitor climate change variables to protect our planet to using global navigation systems and satellite communications to help us connect, travel and work.

**Speakers:**
- **Michal BRICHTA**
  Head, Slovak Investment and Trade Development Agency (SARIO) - Slovak Space Office, Slovakia
- **Natavan HASANOVA**
  Strategy and Business Development Director, Azercosmos Space Agency of the Republic of Azerbaijan, Azerbaijan
- **Humbulani MUDAU**
  CEO, South African National Space Agency (SANSA), South Africa
- **Michel ZOLANA RUI JOAO**
  General Manager, National Space Program Management Office (GGPEN), Angola
- **Grzegorz WROCHNA**
  President, Polish Space Agency (POLSA), Poland
- **MODERATOR**
  Asanda SANGONI
  Acting Managing Director, Earth Observations, South African National Space Agency (SANSA), South Africa
We understand how important studying other planets is – and how this helps us understand the origins of the Universe, how the Earth formed and what its future might be, leading to advancements in science, technology and engineering.

However, there is still a need for us to ‘make the case for space’ to a wider audience. We need to convince policy-makers, budget-holders, potential new investors and the workforce of tomorrow of the value of space, to ensure that we’re securing investment, a talented workforce and encouraging innovation in the sector.

This session will look at how we can better champion the power of space to inspire people, offer greener, smarter solutions and support a sustainable future.

Organized by:

**UK Space Agency**

Speakers:

- Agnieszka LUKASZCZYK, Vice President Government Affairs, EUMA, Planet, Belgium
- Arnt NOLLA-MAINI, Director, United Nations Office for Outer Space Affairs (UNOOSA), Austria
- Megenée CHRISTIAN, Reserve Astronaut / Exploration Commercialisation, UK Space Agency, United Kingdom

**M O D E R A T O R**

Anu DHIMA, Engagement, International and Inspiration Director, UK Space Agency, United Kingdom

**Speakers**

- Jeffrey APELDOORN, Head of Government Solutions Europe, Kenya, Netherlands
- Chris BLACKBERRY, Group COO & Director, Astralscale, United States
- Catherine DOLDIRINA, General Counsel, D-Orbit SpA, Italy
- Agnieszka LUKASZCZYK, Vice President Government Affairs, EUMA, Planet, Belgium
- Amber CHARLESWORTH, Senior Manager, Space Policy, Amazon, Project Kuiper, United States

**M O D E R A T O R**

Tanja MASSON-ZWAAN, VP, Science and Academic Relations, IAF Bureau, Assistant Professor and Deputy Director of the International Institute of Air and Space Law (IASE), Leiden University, Netherlands

**17:45 - 18:45 Highlight Lecture – Fire And Ice - Space for Climate Action High Level Summary Of GLOC 2023 Findings And Recommendations**

**Location:** Heydar Aliyev Center (HAC) Auditorium

Mitigating and adapting to Climate Change is the major societal challenge of our times, and existential for life on Earth as we know it. The IAF Global Space Conference on Climate Change (GLOC) 2023 in Oslo, Norway was convened to inform political, media, users, the public and the space community on the unique contributions the space community is making and develop recommendations for how to accelerate the contribution.

Organized over three days, the conference provided a unique opportunity by convening a large set of influential actors across Government, Industry, Academia, non-Governmental Organizations, and across the developed and developing worlds from around the globe. There was an overwhelming response to the calls for technical and high-level sessions to provide a rich confluence of results, plans, ideas, directions, and recommendations. Indeed, the conference plan had to be expanded substantially from the original plan to accommodate the high level of interest. The aim was showcase and develop understanding and recommendations summarized by the theme: “Fire and Ice, space for climate action” to increase awareness and emphasis for decision makers across all sectors.

This Highlight Lecture will present the GLOC 2023 high level summary for the whole IAF community as a prelude for use in COP 28 in the United Arab Emirates. Audience questions and input will be welcome. Through this highlight lecture, we want to share the outcomes of this very important GLOC 2023 gathering with the broader space community, and thereby foster increased influence within the community, and grow momentum and support to carry these results forward to COP 28 in the United Arab Emirates. Audience questions and input will be welcome.

**S p e a k e r:**

- James GRAF, Director, Earth Science and Technology, NASA Jet Propulsion Laboratory, United States
- MODERATOR: Harry CRANEK, Chief, IAF Earth Observations Committee, United States
Thursday 5 October

08:00 - 08:45 IAF Science & Academic Breakfast

Location: Federation’s Terrace, Baku Convention Centre

Speakers:
- Emma LOUDEN  Ph.D. Candidate, Yale University, United States
- Timur KADYROV  Senior Radiocommunication Engineer, Space Services Department (SSD), International Telecommunication Union (ITU), Switzerland
- Tejas BHARADWAJ  Research Assistant, Carnegie Endowment for International Peace India, India

MODERATOR
Tanja MASSON-ZWAAN  VP: Science and Academic Relations, IAF Bureau, Assistant Professor and Deputy Director of the International Institute of Air and Space Law (IIASL), Leiden University, Netherlands

09:00 - 10:00 Plenary 7 – The Open-Source Revolution And Space Data Accessibility

Location: Heydar Aliyev Center (HAC) Auditorium

This Plenary highlights how the increasing accessibility of data, software, and other tools has revolutionized space, planetary and Earth science research over the last decade. A group of talented young professionals from different fields will speak on the impact of open science in their work. The importance of openness and accessibility has been highlighted by IAF member organizations like NASA, which has designated 2023 as The Year of Open Science.

Speakers:
- Mohammad IRANMANESH  Space Systems Engineer and Co-Founder, Lide.space, Belgium
- Emma LOUDEN  Ph.D. Candidate, Yale University, United States
- Oné MIKULSKYTĖ  Science & Organization Lead, Team Tumbleweed, Netherlands
- Maheen PARBHOO  Innovation Analyst, Research Institute for Innovation and Sustainability (RIIS), South Africa
- Anthony YUEN  Formerly Assistant Professor, Weill Cornell Medicine, United States

MODERATOR
James GREEN  Chief Executive Officer, Chairman, Space Science Endeavors LLC, The Metavisionaries, United States
The audience will hear directly from leaders at NASA, Northrop Grumman, the Canadian Space Agency, European Space Agency, and Japanese Aerospace Exploration Agency about how public-private partnerships spanning more than a dozen countries on three continents are delivering the core elements of the lunar space station. They will leave the forum with a new understanding of how Gateway will:

- Provide benefits for all of humanity through on-board science investigations to study heliophysics, life sciences, and human health
- Grow the aerospace industry through the application of existing and leading-edge technologies in deep space, like Northrop Grumman’s Cygnus architecture, advanced solar electric propulsion and autonomy
- And inspire the next generation of Earth’s children when international teams of astronauts fly to and live on Gateway for longer duration missions at the Moon and prepare for journeys to Mars

The audience will also receive a status update on Gateway’s progress ahead of the 2025 launch of the space station’s first elements to lunar orbit.

Organized by:

Speakers:

- Sean FULLER
  Gateway International Program Manager, National Aeronautics and Space Administration (NASA), United States
- Jon OLASONEN
  Gateway Program Manager, National Aeronautics and Space Administration (NASA), United States
- MODERATOR
  Tiffany TRAVIS
  Gateway Strategic Communications Manager, National Aeronautics and Space Administration (NASA), United States


NASA’s Gateway Program is an international and commercial collaboration to establish humanity’s first space station in lunar orbit. Building on decades of success with ISS, Gateway is an enabler of the emerging lunar economy by extending more than 20 years of partnership and technology from low-Earth orbit to cis-lunar space and beyond.

The GNF will unveil the following points:

- Earth observation data for agriculture, food security and climate change in the next ten years
- How space technologies assist in mitigating climate change
- Earth observation data is increasing rapidly. We need to better collaborate across the public and private space and technology sectors and to involve close stakeholder engagement.

Organized by:

Speakers:

- Iumat BAKHISHOV
  Director of GIS Center, Azercomos Space Agency of the Republic of Azerbaijan, Azerbaijan
- Sohail ELABD
  Director, International Strategies, ESRI, United States
- Fami KALUANOU DE JONG
  Principal Manager, European Bank for Reconstruction and Development (EBRD), United Kingdom
- MODERATOR
  Fidan BEHBUDOVA
  Head of PR and Communication Unit, Azercomos Space Agency of the Republic of Azerbaijan, Azerbaijan

**IAF GNF – Current Challenges In Space, What We Can Learn From Them**

**IAF GNF – Gateway: Humanity’s Lunar Space Station**

**IAF Science & Academic Luncheon (Upon Invitation Only)**

**IAF GNF – Using Data From Earth Observation To Support Sustainable Development Goals: Analysis Of National Cases And Challenges For The Future**

**Location:** Federation’s Terrace, Baku Convention Centre
On 6th April 2023, the Indian government approved India’s much-awaited Indian Space Policy 2023. This national space policy of the Government of India seeks to institutionalise private sector participation in the space sector with the Indian Space Research Organisation (ISRO) focusing on research and development of advanced space technologies and IN-SPACE focussing on the development of space ecosystems in the country. Thus, the policy delineates the roles and responsibilities of ISRO, IN-SPACE, NGE and NewSpace India Limited (NSIL). The policy document has been optimistically welcomed as an essential step that would significantly broaden India’s opportunity for further enhancing its stake in the global space economy.

In this context, IN-SPACE proposes to use the Global Networking Forum (GNF) to deliberate with our global partners the essence of the Indian Space Policy 2023 and the means to realise its stated objectives. At the GNF, we would also examine the potential of the Indian Space Policy 2023 to catapult India’s capabilities as a friendly space-faring nation, one that aspires for Make in India, Make for World, and with sufficient competence to serve the national space economy and constructively contribute to the global space economy.
Friday 6 October

09:00-10:00 Late Breaking News – Chandrayaan-3: Initial Results in Exploring Lunar South Pole

Location: Heydar Aliyev Center (HAC) Auditorium

India, the first nation to land in this region and the 4th to soft land on the moon surface. This is humanity’s first step in exploring lunar south high latitude region. Chandrayaan-3’s Lander has successfully deployed the Rover on the lunar surface. With this, the initial objectives of demonstrating safe and soft landing on the southern high latitudes of the Moon and exhibiting rover mobility on the lunar surface have been achieved. To achieve the further scientific objectives, the instruments accommodated in the Lander and Rover have already started operating in this region and are carrying out in-situ observations. The successful soft landing proved many new technologies in terms of sensors, actuators, simulation, navigation, guidance, control etc. which will be useful for future missions. In addition, the unexplored landing location (~69 deg S) is being characterized by science payloads in terms of seismicity, thermophysical properties, plasma environment, elemental composition would be unique. ISRO is keen to present the preliminary scientific results from this historic mission at IAC 2023, as Late Breaking News.

Speakers:
- M. S. ANURUP
  Director, Space Transportation Programme Office (STPO), Indian Space Research Organisation (ISRO), India
- D. GOWRISANKAR
  Director, Office of International & Interagency Cooperation, Indian Space Research Organisation (ISRO), India
- Victor JOSEPH
  Associate Scientific Secretary & Director, Technology Development & Innovation, Indian Space Research Organisation (ISRO), India
- Anil KUMAR
  Associate Director, ISTRAC and Chief General Manager, Safe & Sustainable Space Operations Management, Indian Space Research Organisation (ISRO), India

10:15-11:15 IAF GNF – IAF-ASE Astronauts Session: “Popularizing Space - Meet The Space People”

Location: Heydar Aliyev Center (HAC) Auditorium

These days we see a surge of new ways to get people into Space. Is Space loosing its pristine, exclusive character? On the podium Space travellers will reflect on their motivations to launch into Space.

Organized by:
### 11:30 - 12:30 IAF GNF – Does Everyone Really Love Space Activities?: How Communications And Storytelling Play A Crucial Role In Gaining Policy Changes, Funding Support, And Workforce Development

**Location:** Heydar Aliyev Center (HAC) Auditorium

Space-based Earth observations can play a key role in addressing global challenges such as climate change, biodiversity loss, disasters, and other social-economic and environmental issues through their ability to capture data over a range of spatial, spectral and temporal resolutions. But how do the public, policymakers, and other stakeholders truly understand this value of Earth observation and other space data and assets to address problems on Earth? What can the space community do to increase awareness and engagement around technology adoption? This session will feature a variety of communications and space experts to discuss outreach and community understanding of how space assets and data serve as a tool for action. It will also explore challenges to communication and how these problems might be overcome.

**Speakers:**
- **Camille BERGIN**
  - Senior Business Development Manager, Vast & @TheGalacticGal, United States
- **Ksenia OZNOK**
  - Founder, Re.Brand Academy, Türkiye
- **Sergey STANOVKIN**
  - Head, BBC Global News Commercial Representatives in Eurasia, United Kingdom
- **Lei WU**
  - Producer and Senior Space Correspondent, CGTN, China
- **Remco TIMMERMANS**
  - Content Marketer and Social Media Specialist for Space, SpaceSide, United Kingdom
- **MODERATOR**
  - Ian CHRISTENSEN
  - Director of Private Sector Programs, Secure World Foundation, United States

**Organized by:** Secure World Foundation

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### 12:30 - 13:30 VIP Luncheon

**Location:** Federation’s Terrace, Baku Convention Centre

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### 16:30 - 17:30 Closing Ceremony

**Location:** Heydar Aliyev Center (HAC) Auditorium

The Closing Ceremony provides a formal end to the activities of the IAC. There will be a video summary of the week’s highlights, presentation of awards, and at the end of the ceremony, the Congress flag will be handed over to the next host country – Italy.

**Master of Ceremony:**
- **Christian FEICHTINGER**
  - Executive Director, International Astronautical Federation (IAF), France

**Speakers:**
- **Clay MOWRY**
  - President, International Astronautical Federation (IAF), United States
- **Anthony TSOU/GRANIS**
  - IAF VP for Honours and Awards, International Astronautical Federation (IAF), United States

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### 19:00 - 22:00 Gala Dinner

**Location:** Gulustan Palace

The dinner starts at 19:00 and will be held at Gulustan Palace. The programme includes speeches by IAF, Azercosmos and the Gala Dinner sponsor (Northrop Grumman), promotional video presentations, national Azerbaijani musical performances, classical music performances, national dances, as well as contemporary music. At the dinner, a variety of delicious dishes pertaining to Azerbaijani cuisine will be served.

**Sponsored by:** Northrop Grumman

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Become an IAF Member

- Download the Application Form on www.iafastro.org
- Participate in the IAF Committees in charge of defining the Technical Programme
- Propose to host a Plenary Event during the IAC
- Propose a Global Networking Forum (GNF) Event to showcase your organization's latest achievements or to discuss the most interesting topics about Space
- Participate and vote in the General Assembly and nominate IAF Officers
- Host one of our events!

Join Us

1. Download the Application Form on our website (www.iafastro.org) or request it to the Secretariat.
2. Complete the Application Form and attach the requested documents.
3. Send everything to our Secretariat (info@iafastro.org).
4. We will review your application and ask in case of missing information.
5. Once reviewed, your application will be recommended by the IAF General Counsel.
6. Final approval by the General Assembly during the IAC.

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