

IAA activities in support of future COPUOS and its Sub-Committees agendas

66th UN-COPUOS Session, 31 May – 9 June 2023, Vienna, Austria





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International Academy of Astronautics (IAA)

- Founded in 1960 as an independent non-governmental organization, the IAA was recognized by the United Nations in 1995.
- IAA operates under the principle of electing eminent experts in astronautics from around the world for the betterment of humanity.
- Its membership comprises today approximately 1100 individuals and corresponding members from 89 countries, including 79 Member States of the Committee on the Peaceful Uses of Outer Space.
- Headquarters in Paris, France
- www.iaaspace.org



IAA Membership

- The IAA membership consists of individuals who have distinguished themselves in the fields of astronautics or in branches of science fundamental to space exploration
- For the past six decades, the IAA has brought together the world's foremost experts in astronautics, facilitating the acknowledgment of their peers' accomplishments, exploring cutting-edge issues in space research and technology, and providing direction and guidance in the non-military uses of space and the ongoing exploration of the solar system
- Membership involves the commitment to work together for the betterment of mankind through the application of the art and science of astronautics



IAA Membership

- Election to the Academy is a recognition of an individual's record of service and achievement, with members being leaders in space and airspace activities within their respective countries
- New members are elected by their peers, and full members hold lifelong memberships, while corresponding members are eligible for full membership after two years but retire after five years.
- With a fairly constant number of members, approximately 5-10% of the members are newly elected each year. This ensures a balance between maintaining high quality and addressing emerging challenges.



IAA Sections

The newly elected members are assigned to one of the four sections:

- Basic sciences
- Engineering sciences
- Life sciences
- Social sciences.

Life sciences includes astronauts. Social sciences included space law professionals, heads of agencies, mission managers



IAA Scientific Commissions

To further facilitate its work, the IAA has established six scientific commissions and a number of study groups (36 operational now):

- Space Physical Sciences
- Space Life Sciences
- Space Technology & System Development
- Space System Operation & Utilisation
- Space Policy Law & Economy
- Space & Society, Culture & Education



IAA Permanent Committees

Permanent Committees perform specific tasks on a continuous basis.

- History Committee
- SETI Committee
- Small Satellites Committee
- Scientific-Legal Liaison Committee
- Space Debris Committee
- Space Traffic Management Committee
- Moon Farside Protection Committee
- Space Solar Power Committee



IAA Publications

- The IAA Journal, ACTA ASTRONAUTICA, is ranked number one in the world in the field of Astronautics.
- The impact factor of ACTA ASTRONAUTICA for 2022 is 2.954 and continues to grow, reaching close to 4 compared to 0.6 in 2010.
- The journal has experienced a significant increase in downloads, surpassing one million, and the number of pages published in 2018 amounted to 7161.



IAA Publications

- The Academy publishes studies on a wide range of topics, including space exploration, space debris, small satellites, space traffic management, natural disasters, and climate change.
- Moreover, the IAA publishes dictionaries in 24 languages, with recent additions being Afrikaans and Swahili. The Academy also publishes book series on small satellites, conference proceedings, remote sensing, and history, including a new book series on the History of Space, adding to the existing three book series, resulting in a total of 15 books published in the past two years.



IAA Conferences

- IAA is a major organizer of conferences, with an average of 25 – 30 per year
- Heads of Space Agencies Summits in 2010, 2012, 2014
- Co-organized with IAF and IISL the International Astronautical Congress during the last two decades
- In 2022, the Academy made a significant contribution to the International Astronautical Congress, preparing 13 Symposia that featured 893 papers in 62 sessions, accounting for 35% of the entire congress.



IAA Conferences in 2023

- 9th Annual Space Traffic Management Conference in Austin, Texas,
- 8th IAA Planetary Defense Conference in Vienna on April 3rd,
- IAA Symposium on Lunar Farside Protection in Turin on May 13th,
- 14th IAA Symposium on Small Satellites for Earth System Observation in Berlin on May 7th
- International Conference on Spacecraft Mission Operations in Bangalore, India, on June 8th
- 8th Interstellar Symposium in Montreal, Canada, on July 10th
- 12th IAA Conference on Space Systems as Critical Infrastructures in Mamaia, Romania, on August 3rd-4th.



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75 studies published

Medical Safety and Liability Issues for Short-Duration Commercial Orbital Space Flights



PSYCHOLOGY AND THE CHALLENGES OF LONG-DURATION SPACE MISSIONS



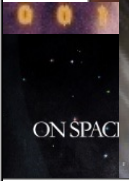
SPACE LIFE SCIENCES FOR AFRICA
INTERNATIONAL COOPERATION FOR SPACE LIFE SCIENCES KNOWLEDGE SHARING AND DEVELOPMENT IN AFRICA



International Academy of Astronautics

The NEXT

Dealing with the THREAT TO EARTH From ASTEROIDS and COMETS



ON SPACE

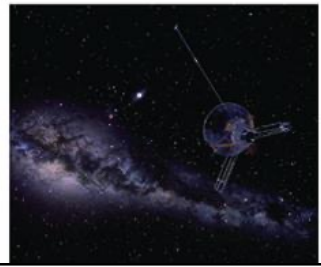
International study on Cost-Effective Earth Observation Missions

EDITOR: RAHNER SANDAU



Global Human Mars System Missions Exploration Goals Requirements

Key Technologies to Enable Near-Term Interstellar Scientific Precursor Missions



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SPACE-APPLICATIONS IN CLIMATE CHANGE AND GREEN SYSTEMS: THE NEED FOR INTERNATIONAL COOPERATION



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SPACE T... (WITH FOCUS ON...)



FUTURE PLANETARY ROBOTIC EXPLORATION: THE NEED FOR INTERNATIONAL COOPERATION



SPACE-BASED DISASTER MANAGEMENT: THE NEED FOR INTERNATIONAL COOPERATION

SPACE EXPECTATIONS: SHAPING THE NEXT FIFTY YEARS



International Academy of Astronautics

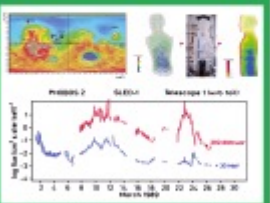
THE ROLE OF SPACE ARCHITECTURE



International Academy of Astronautics

SPACE SOLAR

The energetic particle radiation hazard en route to and at Mars



Editor: Susan M. P. McKenna-Lawlor

International Academy of Astronautics

Global Perspectives on Regional Cooperation in Space: Policies, Governance & Legal Tools



Editors: Ciro Arévalo-Yepes Sylvia Ospina

International Academy of Astronautics

GUIDELINES FOR STANDARDIZATION OF BED REST STUDIES IN THE SPACEFLIGHT CONTEXT



International Academy of Astronautics

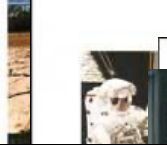
Global Satellite System for Monitoring and Forecasting of the Earth Seismic Activity



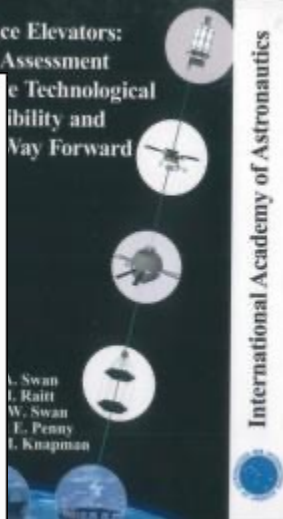
International Academy of Astronautics



FUTURE HUMAN SPACEFLIGHT: THE NEED FOR INTERNATIONAL COOPERATION

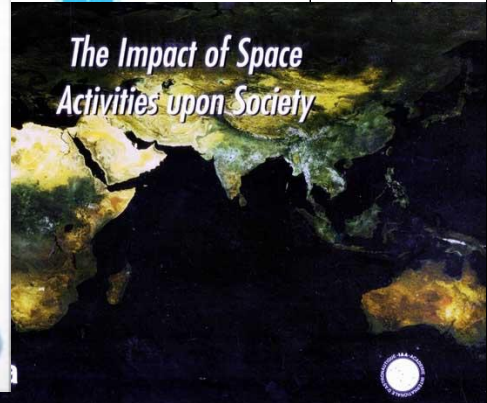


Space Elevators: An Assessment of Technological Feasibility and Way Forward



International Academy of Astronautics

The Impact of Space Activities upon Society



PRIVATE HUMAN ACCESS TO SPACE VOLUME 1: SUBORBITAL FLIGHTS



International Academy of Astronautics

IAA and COPUOS

- Collaboration since more than three decades
- Organization and co-organization of conferences, workshops, side-events for the Committee and the Subcommittees sessions
- Most of the agenda items – also for both scientific and technical and legal Subcommittees – had and have equivalent in the IAA study groups, commissions and conference series
- IAA members from all continents recognize themselves when meeting during COPUOS sessions



COPUOS MS vs IAA Membership

UN-COPUOS Member States	IAA Members - Countries of citizenship
<p>Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bolivia, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Finland, France, Germany, Ghana, Guatemala, Greece, Hungary, India, Indonesia, Iran, Iraq, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lebanon, Libya, Luxembourg, Malaysia, Mauritius, Mexico, Mongolia, Morocco, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Uzbekistan, Venezuela, Viet Nam</p>	<p>Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Belarus, Belgium, Brazil, Bulgaria, Burkina Faso, Burma, Cameroon, Canada, Chile, China, Colombia, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, Egypt, Estonia, Ethiopia, Finland, France, Georgia, Germany, Greece, Guatemala, Hungary, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Ivory Coast, Japan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Nigeria, Norway, Pakistan, Paraguay, Peru, Poland, Portugal, Republic of Guinea, Romania, Russia, Saudi Arabia, Senegal, Serbia, Singapore, Slovak Republic, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sultanate of Oman, Sweden, Switzerland, Syria, Thailand, Tunisia, Turkey, UK, Ukraine, United Arab Emirates, USA, Venezuela, Viet Nam</p>
<p>102 Member States</p>	<p>89 countries 79 COPUOS MS + 10 Non-COPUOS MS</p>



COPUOS (102) and IAA (89) Countries

Albania	Algeria	Angola	Argentina	Armenia	Australia	Austria	Azerbaijan	Bahrain	Bangladesh
Belarus	Belgium	Benin	Bolivia	Brazil	Bulgaria	Burkina Faso	Cameroon	Canada	Chad
Chile	China	Colombia	Croatia	Costa Rica	Cuba	Cyprus	Czech Republic	Denmark	Dominican Republic
Ecuador	Egypt	El Salvador	Estonia	Ethiopia	Finland	France	Georgia	Germany	Ghana
Guatemala	Greece	Hungary	India	Indonesia	Iran	Iraq	Ireland	Israel	Italy
Ivory Coast	Japan	Jordan	Kazakhstan	Kenya	Kuwait	Kyrgyzstan	Latvia	Lebanon	Libya
Luxembourg	Malaysia	Mauritius	Mexico	Mongolia	Morocco	Netherlands	New Zealand	Nicaragua	Niger
Nigeria	Norway	Oman	Pakistan	Panama	Paraguay	Peru	Philippines	Poland	Portugal
Qatar	Republic of Korea	Republic of Guinea	Romania	Russian Federation	Rwanda	Saudi Arabia	Senegal	Sierra Leone	Singapore
Slovakia	Slovenia	South Africa	Spain	Sri Lanka	Sudan	Sweden	Switzerland	Syriac	Thailand
Tunisia	Turkey	Ukraine	UAE	United Kingdom	United States	Uruguay	Uzbekistan	Venezuela	VietNam



COPUOS and IAA Member States

Albania	Algeria	Angola	Argentina	Armenia	Australia	Austria	Azerbaijan	Bahrain	Bangladesh
Belarus	Belgium	Benin	Bolivia	Brazil	Bulgaria	Burkina Faso	Cameroon	Canada	Chad
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Luxembourg	Malaysia	Mauritius	Mexico	Mongolia	Morocco	Netherlands	New Zealand	Nicaragua	Niger
Nigeria	Norway	Oman	Pakistan	Panama	Paraguay	Peru	Philippines	Poland	Portugal
Qatar	Republic of Korea	Republic of Guinea	Romania	Russian Federation	Rwanda	Saudi Arabia	Senegal	Sierra Leone	Singapore
Slovakia	Slovenia	South Africa	Spain	Sri Lanka	Sudan	Sweden	Switzerland	Syria	Thailand
Tunisia	Turkey	Ukraine	UAE	United Kingdom	United States	Uruguay	Uzbekistan	Venezuela	VietNam



IAA – members in 79 COPUOS MS

Albania	Algeria	Angola	Argentina	Armenia	Australia	Austria	Azerbaijan	Bahrain	Bangladesh
Belarus	Belgium	Benin	Bolivia	Brazil	Bulgaria	Burkina Faso	Cameroon	Canada	Chad
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Luxembourg	Malaysia	Mauritius	Mexico	Mongolia	Morocco	Netherlands	New Zealand	Nicaragua	Niger
Nigeria	Norway	Oman	Pakistan	Panama	Paraguay	Peru	Philippines	Poland	Portugal
Qatar	Republic of Korea	Republic of Guinea	Romania	Russian Federation	Rwanda	Saudi Arabia	Senegal	Sierra Leone	Singapore
Slovakia	Slovenia	South Africa	Spain	Sri Lanka	Sudan	Sweden	Switzerland	Syria	Thailand
Tunisia	Turkey	Ukraine	UAE	United Kingdom	United States	Uruguay	Uzbekistan	Venezuela	VietNam



Conclusions

- IAA - think tank in most of the space and space-related activities
- IAA – independent organization of high level professionals
- IAA – important international coverage (citizens of most COPUOS MS are distinguished IAA members)
- IAA – zero political bias and members coverage of all major space powers
- IAA – observer accepted in COPUOS since 1996
- COPUOS agenda items – substantially included by IAA Scientific Commissions and Study Groups
- IAA might act as a COPUOS advisor / consultant organization



Thank you for your attention!

