



UNITED NATIONS
Office for Outer Space Affairs



وكالة الإمارات للفضاء
UAE SPACE AGENCY

مركز محمد بن راشد
للفضاء
MOHAMMED BIN RASHID SPACE CENTRE

PROGRAMME

United Nations/United Arab Emirates High Level Forum: “Space as a driver for socio-economic sustainable development”

Organized by the

United Nations Office for Outer Space Affairs

and the

United Arab Emirates

Co-organized and co-sponsored by

Secure World Foundation,

Sierra Nevada Corporation’s Space Systems and

International Committee on Global Navigation Satellite Systems

Hosted by the

United Arab Emirates Space Agency and the Mohammed Bin Rashid Space Centre

20 – 24 November 2016

Dubai, United Arab Emirates

Sunday, 20 November 2016

Venue: Grand Hyatt Dubai Hotel Conference Centre, *Sheikh Rashid Road, Oud Metha Road*

08:00 – 17:30 **On-site registration**

Opening Ceremony and High Level Panel

Al Ameera Ball Room

09:00 **Welcome and opening addresses**

Message by the United Nations Secretary-General **Ki-Moon BAN**
(*Delivered by Woo-soo KIM, United Nations Office for Disarmament Affairs*)

Khalifa AL-ROMAITHI, *Chairman, United Arab Emirates Space Agency*

Hamad AL MANSOORI, *Chairman, Mohammed Bin Rashid Space Centre*

Simonetta DI PIPPO, *Director, United Nations Office for Outer Space Affairs*

Yury FEDOTOV, *Director-General, United Nations Office at Vienna* (video message)

Michael SIMPSON, *Executive Director, Secure World Foundation*

Mark SIRANGELO, *Sierra Nevada Corporation's Space Systems*

09:45 Setting the scene, **Simonetta DI PIPPO**, *United Nations Office for Outer Space Affairs*

10:15 Keynote presentation, **Scott KELLY**, *United States of America*

10:45 – 11:15 Coffee Break

High-Level Panel

Organized with participation of top-level representatives of space agencies and other relevant national/regional/international institutions and organizations from both space-faring and non-space faring countries, establishing a direct debate with the HLF participants on the role of space science and technology in fostering global development.

Panel 1: Global Challenges and Space Technology: Towards SPACE2030

Moderator: **Simonetta DI PIPPO**, *United Nations Office for Outer Space Affairs*

11:15 – 12:30 **Speakers**

Jean-Yves LE GALL, *National Centre for Space Studies, France*

Yanhua WU, *China National Space Administration, China*

Gale ALLEN, *National Aeronautics and Space Administration, United States*

Pascale EHRENFREUND, *German Aerospace Centre, Germany*

Mohammed Nasser AL-AHBABI, *United Arab Emirates Space Agency, United Arab Emirates*

12:30 – 14:00

Group Photo/Lunch Break

14:00 – 15:15

Speakers

Francisco Javier MENDIETA-JIMENEZ, *Mexican Space Agency, Mexico*

Carlo des DORIDES, *European GNSS Agency, Czech Republic*

Roberto BATTISTON, *Italian Space Agency, Italy*

Xinjun LI, *Asia-Pacific Space Cooperation Organization*

Avi BLASBERGER, *Israel Space Agency, Israel*

Chris LEE, *United Kingdom Space Agency, United Kingdom*

Marius-Ioan PISO, *Romanian Space Agency, Romania*

15:15 – 15:35

Coffee Break

Panel 2: Making a difference: Working Together Towards Sustainable Space

Moderators: **Niklas HEDMAN** and **Luc ST-PIERRE**, *United Nations Office for Outer Space Affairs*

15:35 – 17:30

Speakers

Won-soo KIM, *United Nations Office for Disarmament Affairs*

Francois RANCY, *International Telecommunication Union*

Bertrand FROT, *United Nations Development Programme*

Giovanni RUM, *Group on Earth Observation*

Lennard FISK, *Committee on Space Research*

Dominique TILMANS, *EURISY*

Jean-Jacques TORTORA, *European Policy Institute*

Soichi NOGUCHI, *Association of Space Explorers*

Steve EISENHART, *Space Foundation*

Giovanni Sylos LABINI, *European Association of Remote Sensing*

17:30

Adjourn

19:00

Welcome Dinner

Monday, 21 November 2016

Women-in-Space Breakfast and Networking

Open to all participants, this event designed to foster the interests of women working in space science and technology, and to advance women through initiatives and leadership development, as well as networking.

This event is sponsored by Women-in-Aerospace Europe (WIA-E)

Moderator: **Christiane LECHTENBOERGER**, German Aerospace Centre

08:00 – 08:45

Speakers

Simonetta DI PIPPO, United Nations Office for Outer Space Affairs

Sumaya AL HAJERI, United Arab Emirates Space Agency, United Arab Emirates

Khuloud AL HARMOODI, Mohamed Bin Rashid Space Centre, United Arab Emirates

Gale ALLEN, National Aeronautics and Space Administration, United States

Dominique TILMANS, EURISY

Breakout session 1 – Space Economy

“The full range of activities and use of resources that create and provide value and benefits to human beings in the course of exploring, understanding and utilizing space”. Economic growth is driven by technology innovation, and space is innovation by definition, because it is at the edge of what is possible for humanity to do and develop.

Moderator: **Ximin MA**, China and **André Joào RYPL**, Brazil

Rapporteur: **Markus WOLTRAN**, United Nations Office for Outer Space Affairs

09:00

ESA’s concept of “Space 4.0”, **Piero MESSINA**, European Space Agency

09:15

Claire JOLLY, OECD

09:30

Measuring value; Defining benefit, **Michael SIMPSON**, Secure World Foundation

09:45

Space medicine and technology for socioeconomic dedication, **Chiaki MUKAI**, Japan Aerospace Exploration Agency, Japan

10:00

Space activities in Morocco for socio-economic development, **Driss EL HADANI**, Royal Centre For Remote Sensing, Morocco

10:15

Contribution of China's space industry to the socio-economic development of the international community, **Wei ZHOU**, China Great Wall Industry Corporation

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| 10:30 | Khaled AL HASHEMI , <i>United Arab Emirates Space Agency, United Arab Emirates</i> |
| 10:45 – 11:05 | Coffee Break |
| 11:05 | Rick TUMLINSON , <i>Deep Space Industries</i> |
| 11:20 – 12:30 | Discussions |
| 12:30 – 13:30 | Lunch Break |

Breakout session 2 – Space Society

Refers to a society, which carries out its core functions while making the best use of space technologies and space-based services and applications.

Moderator: **Naser AL RASHEDI**, United Arab Emirates and **Luc ST-PIERRE**, United Nations Office for Outer Space Affairs

Rapporteur: **Romana KOFLER**, United Nations Office for Outer Space Affairs

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| 13:30 | Open Universe Initiative, Pablo GIOMMI , <i>Italian Space Agency, Italy</i> |
| 13:45 | Steve EISENHART , <i>Space Foundation</i> |
| 14:00 | Space sciences for the benefit of society, Pascal MICHEL , <i>Canada</i> |
| 14:15 | Space assets and the sustainable development goals, Michael SIMPSON , <i>Secure World Foundation</i> |
| 14:30 | Matar AL SUWAIDI , <i>United Arab Emirates Space Agency, United Arab Emirates</i> |
| 14:45 | Evolution of decision support in public service: Application of CHEOS, Jin XING , <i>China National Space Administration, China</i> |
| 15:00 | Sheikha AL MASKARI , <i>United Arab Emirates Space Agency, United Arab Emirates</i> |
| 15:15 – 15:35 | Coffee Break |
| 15:35 | UNOSAT - from imagery to impact, Einar BJORGO , <i>UNITAR'S Operational Satellite Applications Programme</i> |
| 15:50 | Designing a Moon Village for all humanity, Angeliki KAPOGLOU , <i>Greece</i> |
| 16:05 | Biofabrication in space: new opportunities for global health, Lorenzo MORONI , <i>the Netherlands</i> |
| 16:20 | Shared vision, common action - stronger capacity building to support a sustainable society, Mino RATHNASABAPATHY , <i>Space Generation Advisory Council</i> |
| 16:35 | Samer HALAWY , <i>Thuraya, United Arab Emirates</i> |

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| 16:50 – 17:45 | Discussions |
| 17:45 | Adjourn |
| 17:45 – 18:15 | <i>(Informal meeting of the sessions moderators/rapporteurs to prepare conclusions and recommendations for the Forum's consideration)</i> |

Tuesday, 22 November 2016

Breakout session 3 – Space Accessibility

Refers to all user communities and decision-makers being able, on an equal basis, to benefit from and use space technologies and space-based data. "Data accessibility", a subset, promotes principles, policies and practices that ensure that all countries can benefit and make equal use of space science and technology applications and space-based data, information and products.

Moderator: **Luciano SACCANI**, Sierra Nevada Corporation's Space Systems and **Michael SIMPSON**, Secure World Foundation

Rapporteur: **Sharafat GADIMOVA**, United Nations Office for Outer Space Affairs

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| 09:00 | The contribution of European Earth Observation industries to the global challenges, Giovanni Sylos LABINI , <i>EARSC</i> |
| 09:15 | How the Dream Chaser can allow countries to quick start a domestic space program, Luciano SACCANI , <i>Sierra Nevada Corporation's Space Systems</i> |
| 09:30 | Small satellite technology and space capability, Christopher JOHNSON , <i>Secure World Foundation</i> |
| 09:45 | GEO contribution to UNISPACE+50: data accessibility as a target for a joint UNOOSA/GEO initiative, Giovanni RUM , <i>Group on Earth Observations</i> |
| 10:00 | Science in space: Space experiments for sustainable development, Matthias SIMNACHER , <i>Airbus DS</i> |
| 10:15 | Recent developments of China's space activities, Hui JIANG , <i>China</i> |
| 10:30 | Taner KODANAZ , <i>Digital Globe</i> |
| 10:45 – 11:05 | Coffee Break |
| 11:05 | Proposed global partnership for data accessibility and CANEUS small satellite design and construction facilities to serve the needs of UN Member Nations, Milind PIMPRIKAR , <i>CANEUS</i> |
| 11:20 | Artiom ANISIMOV , <i>EOS Data Analytics</i> |
| 11:35 – 12:30 | Discussions |

12:30 – 13:30

Lunch Break

Breakout session 4 – Space Diplomacy

For the purpose of fostering socio-economic sustainable development, defined as cooperation among nations in using space technologies and applications to address common challenges facing humanity and to build constructive, knowledge-based partnerships.

Moderator: **Kenneth HODGKINS**, United States of America and **Jean-Jacques TORTORA**, European Space Policy Institute

Rapporteur: **Niklas HEDMAN**, United Nations Office for Outer Space Affairs

- 13:30 International cooperation in promoting a global navigation satellite system of systems, **Sharafat GADIMOVA**, *ICG Executive Secretariat, United Nations Office for Outer Space Affairs*
- 13:45 Existing global space governance and the way forward, **Ram JAKHU**, *Canada*
- 14:00 Perspectives on sustainable space activities, **Christopher JOHNSON**, *Secure World Foundation*
- 14:15 COPUOS' thematic priority area of global partnership in space exploration and innovation, **Kenneth HODGKINS**, *United States*
- 14:30 Designing space policies in emerging countries: main challenges, **Magda COCCO**, *VdA*
- 14:45 The goals, challenges and limitations of space diplomacy, **André João RYPL**, *Brazil*
- 15:00 **Naser AL RASHEDI**, *United Arab Emirates*
- 15:15 – 15:35 **Coffee Break**
- 15:35 Space diplomacy in China: Policy and practice, **Xinmin MA**, *China*
- 15:50 Space diplomacy: Useful initiatives for taking international cooperation beyond the skies, **Rosa Maria RAMIREZ DE ARELLANO Y HARO**, *Mexico*
- 16:05 Global space governance for sustainable development, **Olga STEHLMAKH**, *Canada*
- 16:20 OG Summit® - Shuttle diplomacy in a new space age, **Namira SALIM**, *Space Trust*
- 16:35 – 17:30 Discussions

17:30 **Adjourn**

17:30 – 18:00 (Informal meeting of the sessions moderators/reporteurs to prepare conclusions and recommendations for the Forum's consideration.)

Wednesday, 23 November 2016

Roundtable Discussion Session:

Partnership with industries, private sector and non-governmental organizations

The primary purpose is to discuss possible future collaboration schemes and partnerships with the United Nations, to foster dialogue with the space industry, the private sector and non-governmental organizations in the framework of the Committee on the Peaceful Uses of Outer Space, and to promote scientific and technological development, capacity-building and a more sustainable space economy, in preparation for UNISPACE+50.

Moderator: **Simonetta DI PIPPO**, United Nations Office for Outer Space Affairs

09:00 - 10:30

Panelists

Introduction Remarks, **Simonetta DI PIPPO**, United Nations Office for Outer Space Affairs

Michael SIMPSON, Secure World Foundation

Mark SIRANGELO, Sierra Nevada Corporation's Space Systems

Giovanni Sylos LABINI, European Association of Remote Sensing

Steve EISENHART, Space Foundation

Magda COCCO, VdA

Samer HALAWI, Thuraya

Milind PIMPRIKAR, CANEUS

10:30 – 10:50

Coffee Break

Space Activities: National Programmes and Case Studies

Moderator: **Angeliki KAPOGLOU**, Greece

Rapporteur: **Minoo RATHNASABAPATHY**, Space Generation Advisory Council

10:50 The importance of space activities for the socioeconomic development of Mexico, **Balan Alejandro GUTIÉRREZ HERRERA**, Mexico

11:05 Space technology in Mongolia, **Oyuntsetseg BAASANJAV**, Mongolia

11:20 Space technology and applications for wildlife management and protecting biodiversity, **Margaret MAIMBA**, Kenya

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| 11:35 | Characterization of locations and durations of ionospheric scintillation over the equatorial region, Joseph Ouko OLWENDO , <i>Kenya</i> |
| 11:50 | Challenges and prospects for sustainable development in Africa Adamou BAMANGA , <i>Cameroon</i> |
| 12:05 | Space Research for Sustainable Development in Sudan, Rayan IMAM , <i>Sudan</i> |
| 12:20 | Empowering women for space science education for socio-economic sustainable development, Manisha DWA , <i>Nepal</i> |
| 12:35 | Life in Space for life on earth, Nandu GOSWAMI , <i>Austria</i> |
| 12:50 – 14:00 | Lunch Break |
| 14:00 | Technical Tour: An informative technical tour of the Mohammed Bin Rashid Space Centre will be organized for the Forum participants. |
| 18:00 | Adjourn |

Thursday, 24 November 2016

Roundtable Discussion Session: UNISPACE+50 – The way ahead

The primary purpose is to address the future global space governance leading up to the fiftieth anniversary of the First United Nations Conference on the Exploration and Peaceful Uses of Outer Space “UNISPACE+50” in 2018.

Moderator: **David KENDALL**, *Canada*

Rapporteur: **Niklas HEDMAN**, *United Nations Office for Outer Space Affairs*

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| 09:00 – 10:00 | Panelists |
| | Michael SIMPSON , <i>Secure World Foundation</i> ; Naser AL RASHEDI , <i>United Arab Emirates</i> ; |
| | Luciano SACCANI , <i>Sierra Nevada Corporation’s Space Systems</i> |
| | Rosa Maria RAMIREZ DE ARELLANO Y HARO , <i>Mexico</i> |

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| 10:00 – 10:20 | Coffee Break |
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10:20 – 11:20 **Capacity Building and Information Dissemination**

Moderator: **Margaret MAIMBA**, *Kenya*

Rapporteur: **Manisha DWA**, *Nepal*

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| 10:20 | ARCSSTE-E Education programme: Best practices, challenges and future projections, Mr. Ganiyu AGBAJEA , <i>ARCSSTE-E, Nigeria</i> |
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- 10:35 The significance of social media to increase public awareness of the benefits of space, **Remco TIMMERMANS**, *Netherlands, TBC*
- 10:50 **Charles STOTLER**, *American Society of International Law*
- 11:05 **Athina BALTA**, *Athina Balta Law Group PLLC*
- 11:20 Preparation of the presentation to be made during the closing session

12:00 – 13:30 **Plenary Closing Session and Concluding Remarks**

12:00 – 12:40 **Summaries of the breakout sessions**

*Breakout session 1: **Space Economy***

*Breakout session 2: **Space Society***

*Breakout session 3: **Space Accessibility***

*Breakout session 4: **Space Diplomacy***

12:40 **Summary of HLF: Dubai Declaration** (*with recommendations consolidated at the breakout sessions and conclusions*)

12:40 – 13:00 **Concluding Remarks**

Simonetta DI PIPPO, *United Nations Office for Outer Space Affairs*

Mohammed Nasser AL-AHBABI, *United Arab Emirates Space Agency, United Arab Emirates*

13:00 **Adjourn**