## The International Academy of Astronautics in 2017



Dr. Jean Michel Contant Secretary General IAA



UN COPUOS Subcttee
Vienna, Austria
29 January 2018

## The International Academy of Astronautics (IAA) Founded in Stockholm August 16, 1960

Theodore von Karman First IAA President and Frank J. Malina Second IAA President, GALCIT project before historic JATO flights in 1941

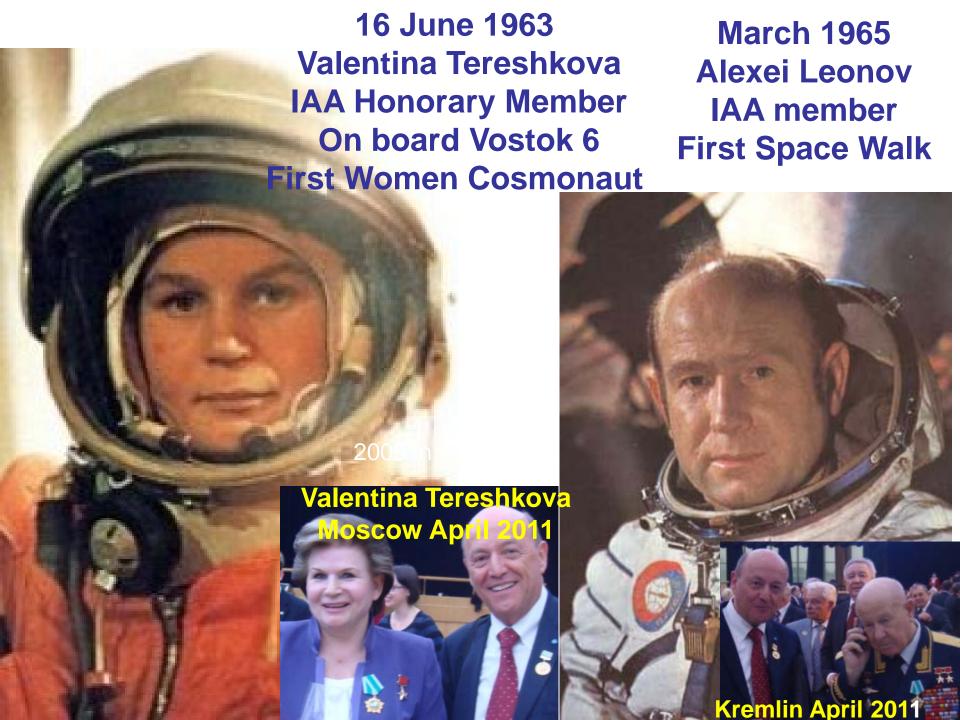


First US satellite, Explorer 1: radiation belt theorized by James Van Allen, one of the outstanding discoveries of the International Geophysical Year.



Starting from left side: IAA Academicians William Pickering, James Van Allen, Wernher von Braun

**April 12, 1961** Yuri Gagarin IAA Honorary Member First Man in Space eena Gagarina emlin 2011





At the First Regular Meeting of the Academy in Washington, D. C., 3 October 1961, left to right: (seated, front row) N. Boneff, F. J. Malina, J. Pérès, Th. von Kármán, R. Pešek, A. G. Haley, L. R. Shepherd, E. A. Brun, R. Grandpierre, R. Margaria; (standing, middle row) J. M. J. Kooy, E. Carafoli, A. Meyer, H. Strughold, J. C. Cooper, H. L. Dryden, A. Busemann, M. Summerfield, E. Stuhlinger, U. S. von Euler; (standing, back row) H. van Gelder, A. G. Vannucci, J. P. Stapp, H. S. Seifert, T. M. Tabanera, L. Broglio, A. Ferri, A. Eula, V. Guth, H. Friedman.

## International Academy of Astronautics



#### IAA

an independent international community of 1200 active leading experts (1700 from 89 nations) recognized by the UN in 1996.

membership access based on highly competitive election

#### **IAA Board of Trustees**

#### **President**

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Membership: Access by Election About 50 new members elected each year from all over the world Corresponding Member (<5 years) Member (Lifetime)

#### www.iaaweb.org

IAA is arranged in four sections to reflect the major disciplines:

Basic Sciences,

Engineering Sciences,

Life Sciences and
Social Sciences.

#### THE THEODORE VON KARMAN AWARD

The premier and the most prestigious award of the Academy. Given annually to recognize outstanding lifetime achievements in any branch of science. Honors the memory of the Academy's founder and 1st President

† Charles S. Draper, USA Alexei Yeliseyev, USSR Reimar Luest, FRG † Eilene Galloway, USA † Minoru Oda, Japan † Luigi Broglio, Italy **Jacques Blamont, France** † William Pickering, USA Karl E. Klein, Germany Alexei A. Leonov, Russia

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#### **IAA at United Nations**

#### The International Academy of Astronautics

- Made many presentations of the IAA studies
- Distributed studies to each delegation





#### IAA Summit 2010: 30 Heads Space Agencies

Space Exploration: Robotic & Human Spaceflight
Disaster Management, Climate Change
Washington DC, USA



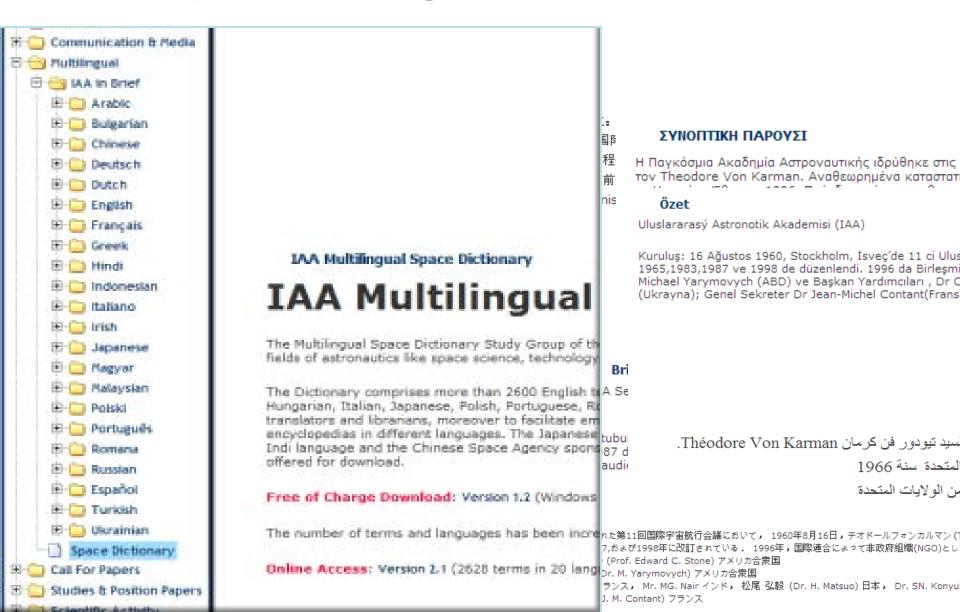
## IAA Summit 2014: 35 Heads Space Agencies Space Exploration, Washington DC, USA



# IAA Summit 2015: 25 Heads Space Agencies Disaster Management, Climate Change Mexico,

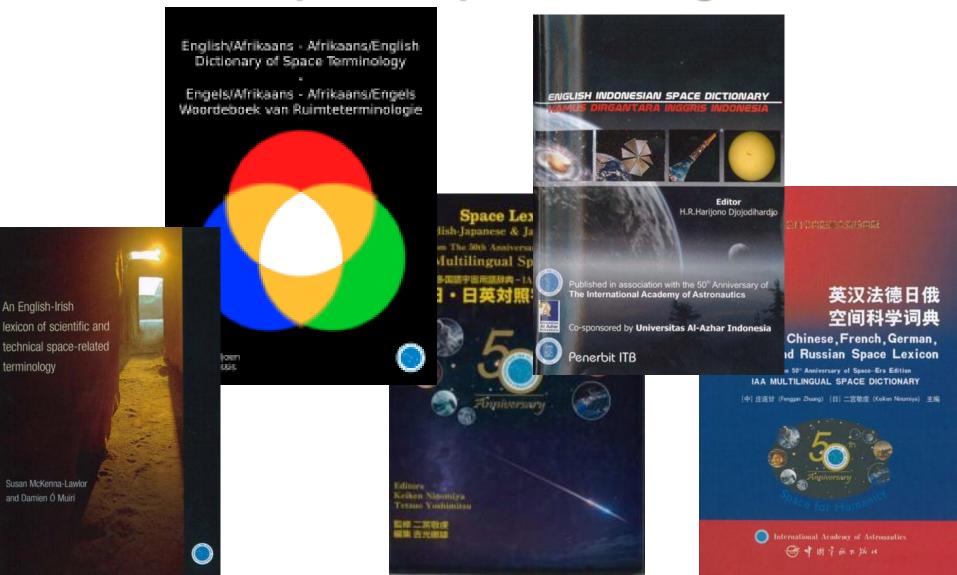


## **Space Dictionaries free of charge** http://iaaweb.org/content/view/362/510/



#### **IAA Dictionaries**

https://shop.iaaweb.org



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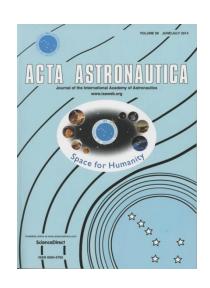
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**Editor in Chief:** 

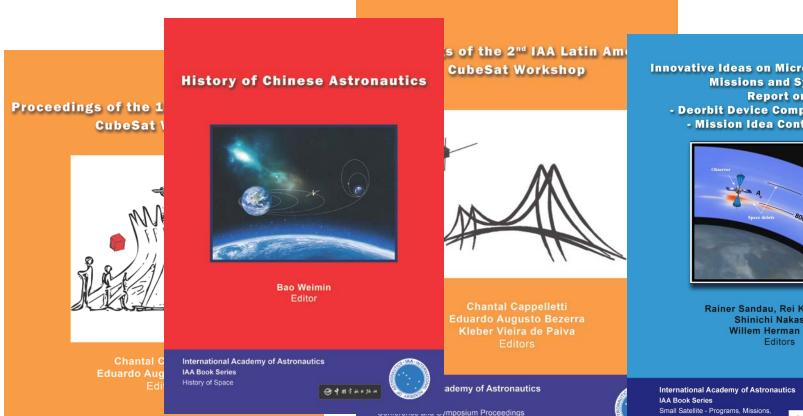
Rock Jeng-Shing Chern
Impact factor from 1.095 of 2015/2016
to 1.536 of 2016/2017
increase of 40.3%.



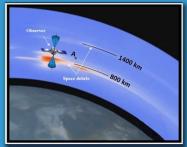
Total submissions may reach 1200 in 2017

Number of paper downloads reached about one half million (500,000) a year.

#### **Book Series in 2017**



Innovative Ideas on Micro/Nano-Satellite **Missions and Systems** Report on - Deorbit Device Competition (DDC) - Mission Idea Contest (MIC4)



Rainer Sandau, Rei Kawashima, Shinichi Nakasuka, Willem Herman Steyn

Technologies and Applications



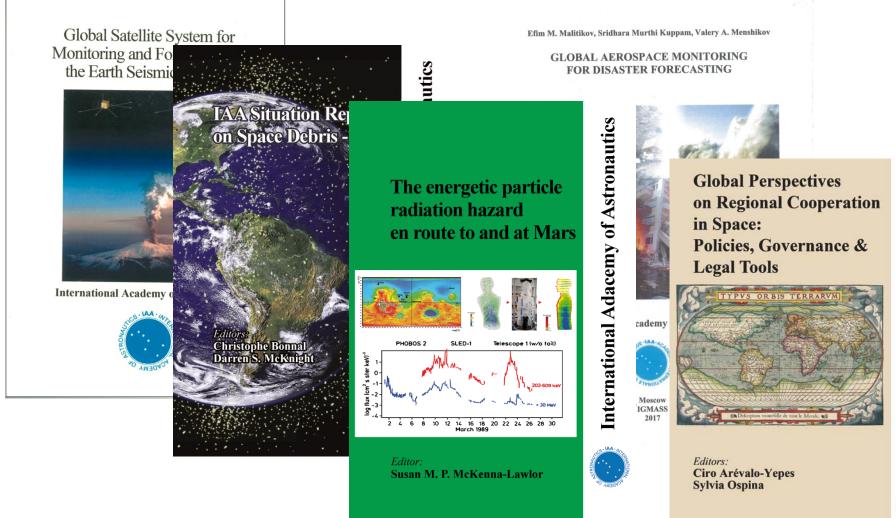
**International Academy of Astronautics** IAA Book Series

Conference and Symposium Proceedings



# International Academy of Astronautics

#### **Cosmic Studies in 2017**





#### 25 to 30 IAA Conferences Yearly



Tunis

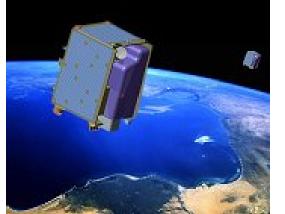


## 1<sup>st</sup> IAA Latin American Symposium on Small Satellites in Buenos Aires, March 2017



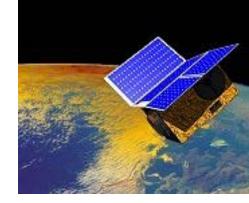
### 11 IAA Symposium on Small Satellites

For Earth Observation



#### **Berlin**

1996, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017









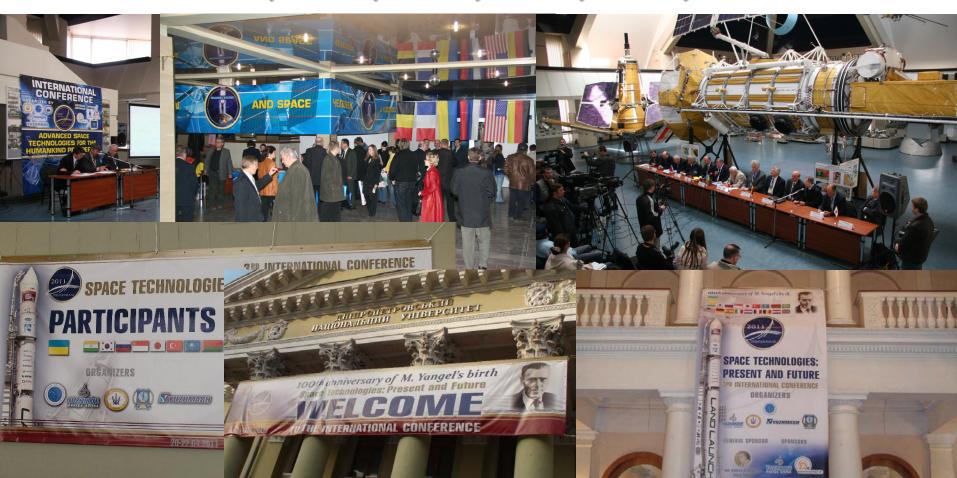


## 11<sup>th</sup> IAA Symposium on Small Satellites for Earth Observation Berlin, April 2017



#### IAA Conferences on Advanced Space Technologies for the Humankind Prosperity Dniepropetrovsk now Dnipro, Ukraine

2007, 2009, 2011, 2013, 2015, 2017



## 3rd IAA Conference on Dynamics and Control of Space Systems, Moscow





IAA Planetary Defense Conference 2009 Granada, 2011 Bucharest, Romania 2013 Flagstaff, USA 2015 Frascati, Italy 2017 Tokyo, Japan



#### IAA Conferences on Planetary Defense 2007 Spain, 2009 Granada, 2011 Bucharest, 2013 Flagstaff, 2015 Frascati, 2017 Tokyo



## IAA Symposium on Realistic Advanced Scientific Space Missions, Italy

1996 Turin, 1998 Aosta, 2000 Aosta, 2005 Aosta, 2007 Aosta, 2009 Aosta, 2011 Aosta, 2013 Turin, 2015 Turin, 2017 Turin



## IAA Conferences on Space Systems as Critical Infrastructure, Mamaia, Romania 2012, 2013, 2014, 2015, 2016, 2017



#### 12 Low Cost Planetary Missions symposia

01-Laurel, USA 02-Laurel, USA 03-Pasadena, USA 04-Laurel, USA 05-Noordwijk, Nethe 06-Kyoto, Japan 07-Pasadena, USA 08-Goa, India 09<sup>-</sup>Laurel, USA 10-Pasadena, USA 11-Berlin, Germany 12-Pasadena, USA





#### 1<sup>st</sup> IAA Conference on Space Situational Awareness Orlando, FL, USA, Nov. 13-15, 2017



The ozone hole is in recovery thanks to the Montreal agreement. Unlike the ozone problem, Earth orbits congestion and collisions in space will not solve themselves by simply stopping orbital injections. "We need to fix this plane while it is flying". And we have to do it yesterday.

# IAA Conferences on Impact of Space Technology Innovation on Economic Development, Shanghai, China

2001, 2008, 2011, 2013, 2015, 2017



#### **Shanghai, China, Nov 2017**



#### 21 IAA Human in Space Symposia since 1962 Life science in all continents 21<sup>st</sup> HIS in Shenzen, China 27 Nov 2017

1962 Paris

1971 Yerevan

1987 Houston

**1993 Tokyo** 

2000 Santorini

2007 Beijing

2013 Cologne

2017 Shenzhen

1965 Paris

1973 Washington

1989 Tashkent

1995 Toulouse

2003 Banff

2009 Moscow

2015 Prague

1968 Geneva

1980 Bonn

1991 Cologne

1997 Washington

2005 Graz

2011 Houston





#### **Conference on University Satellite Mission**

Rome 2013, 2015, 2017

Brazil 2014, 2016 Argentina 2017 Mongolia 2017



IAA pioneered new concepts such as
Return to the Moon
Mars Exploration
Space Debris
Small Satellites
Low Cost Planetary Missions
Planetary Defense
Space Situational Awareness...

IAA is at the forefront of space research imagination and and welcomed Summit follow-on

# Thank you sgeneral@iaamail.org

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