

Cospar Report to Space Studies Board

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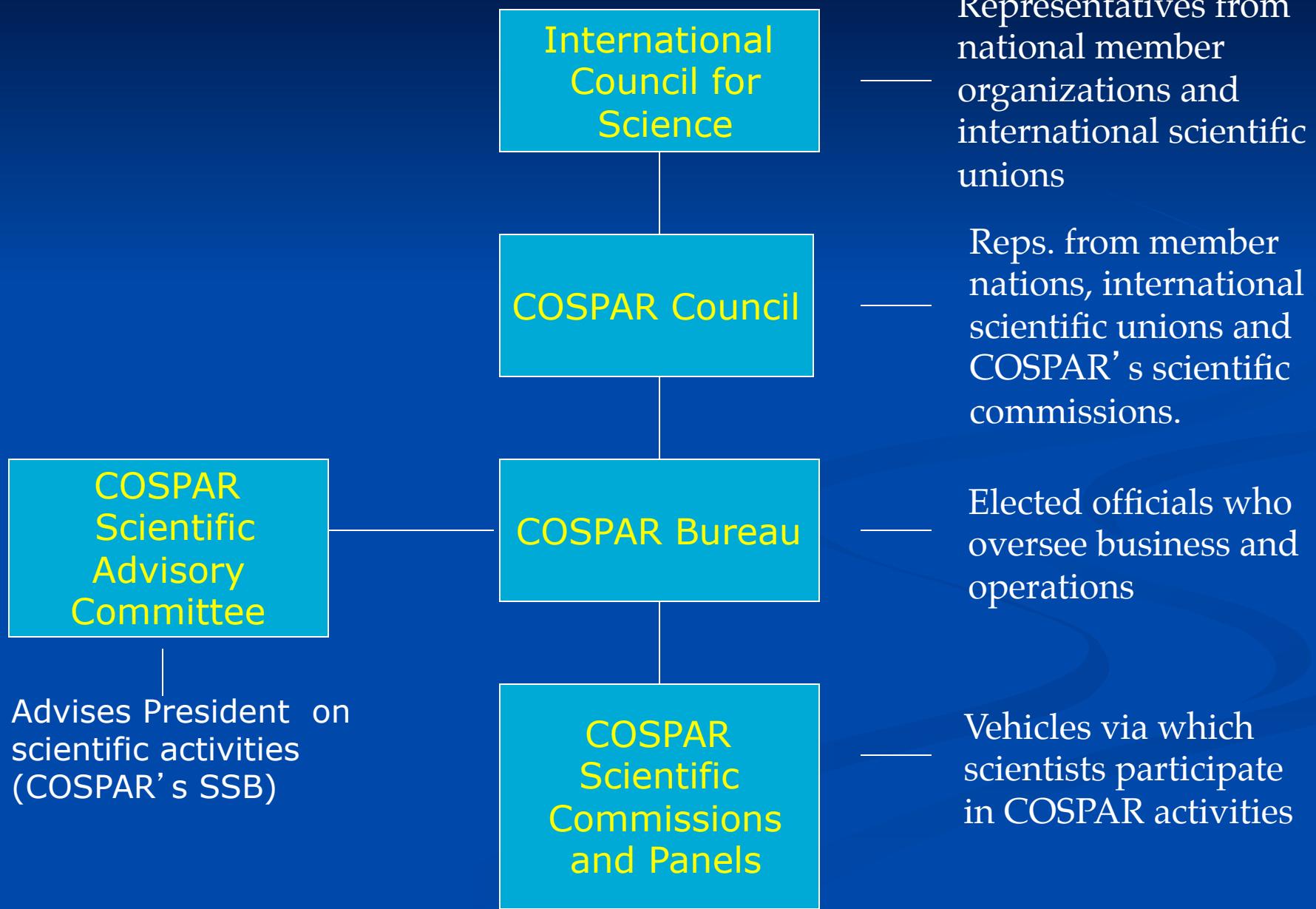
Background

- **Origin:** Established by the International Council for Science (ICSU) in 1958 as an outgrowth of the International Geophysical Year and the launch of Sputnik 1. COSPAR's first scientific assembly was held in London in 1958.
- **Goals:** To promote international scientific research in space, with emphasis on the exchange of results, information and opinions, and to provide a forum, open to all scientists, for the discussion of problems that may affect scientific space research.
- **Mechanisms:** Cospar addresses its goals by sponsoring scientific assemblies, symposia, topical colloquia, capacity-building workshops and fellowships, the creation of scientific roadmaps, awards and publications
- **Finances:** COSPAR's income is derived mainly from national contributions (2014 U.S. contribution €23,040 [same as Russia and China]), publication royalties and registration fees. It's primary expenses are the organization of scientific meetings, support to scientists, publications, office and operating expenses.

COSPAR and the SSB

- The SSB is the U.S. National Committee for COSPAR
- NAS President appoints U.S. Representative to COSPAR based on SSB nomination
- U.S. Representative was automatically one of COSPAR two vice presidents (second vice president appointed by the Soviet Academy of Sciences) until democracy won the day in 1994. Since then, the elected U.S. vice presidents have been:
 - Louis J. Lanzerotti (1994-2002)
 - Edward C. Stone (2002-2010)
 - Robert P. Lin (2010-2012)

COSPAR Governance



COSPAR Council and Bureau

Council

- COSPAR President
- Representatives of the 46 national member organizations
- Representatives of 13 participating international scientific unions
- Chairs of COSPAR's 9 scientific commissions
- Chair of the finance committee

Bureau

- COSPAR President:
Giovanni F. Bignami (Italy)
- COSPAR Vice-Presidents:
Wu Ji (China)
Vacant (since the death of Robert P. Lin)
- Members:
 - I. S. Batista (Brazil)
 - K.-H. Glassmeier (Germany)
 - A. Jayaraman (India)
 - S. Sasaki (Japan)
 - J.-P. St.-Maurice (Canada)
 - L. Zelenyi * (Russia)

* second and final term

COSPAR Election 2014

■ COSPAR President (1)

Giovanni Bignami⁺ (Italy)
Lennard Fisk (USA)

■ COSPAR Vice Presidents (2)

Wu Ji⁺ (China)
A. Jayaraman (India)
Hector Perez-de-Tejada (Mexico)
Lennard Fisk^{*} (USA)

■ Finance Committee Chair (1)

Wim Hermsen⁺ (Netherlands)

President elected by postal ballot of Council members. Other positions by in-person ballot of Council members at Assemblies

■ Bureau (6)

Jan Lastovicka (Czech Rep.)
Catherine Césarsky (France)
Manuel Grande (UK)
Mikhail Panasyuk (Russia)
Marius Potgieter (South Africa)
Werner Schmutz (Switzerland)

Inez Batista⁺ (Brazil)
Karl-Heinz Glassmeier⁺ (Germany)
Sho Sasaki⁺ (Japan)
Jean-Pierre St.-Maurice⁺ (Canada)
A. Jayaraman^{* +} (India)

Hector Perez-de-Tejada^{*} (Mexico)
Lennard Fisk^{*} (USA)

* If not elected to a higher position

+ Second and final term if reelected

COSPAR Scientific Structure

- SC A—Space Studies of the Earth's Surface, Meteorology and Climate
- SC B—Space Studies of the Earth-Moon System, Planets, and Small Bodies
- SC C—Space Studies on the Upper Atmospheres of the Earth and Planets including Reference Atmospheres
- SC D—Space Plasmas in the Solar System, Including Magnetosphere
- SC E—Astrophysics from Space
- SC F—Life Sciences as Related to Space
- SC G—Materials Sciences in Space
- SC H—Fundamental Physics in Space

Plus 11 special purpose panels devoted to, e.g., Capacity Building, Space Weather, Planetary Protection, Exploration and Exoplanets (New)

What Does COSPAR Do?

Well Known

- Holds the biennial Scientific Assembly. 4,000+ abstracts received in all space-science disciplines. 30+ parallel sessions over a 7-day period, plus interdisciplinary lectures and other plenary presentations.
- Publishes *Advances in Space Research* and *Life Sciences in Space Research*. Both are fully peer-reviewed journals. ASR is published twice a month and its impact factor is currently 1.178 and steadily rising. LSSR will issue its first issue this month.
- Publishes *Space Research Today*, a quarterly newsletter.

Less Well Known

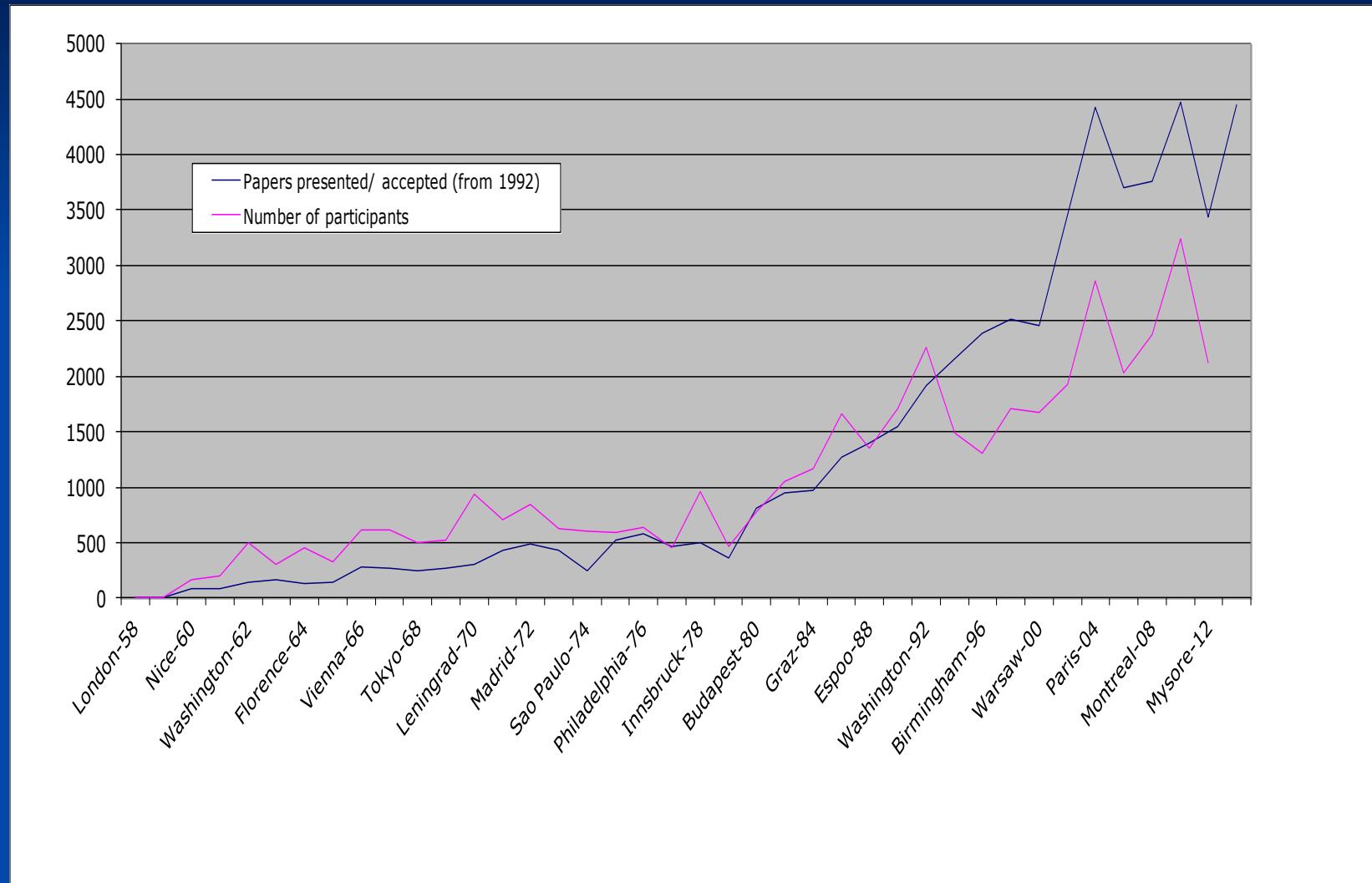
- Organizes capacity-building workshops for graduate students, postdocs and junior faculty in less-developed spacefaring nations.
- Provides capacity-building fellowships for workshop alumnae.
- Maintains and promotes the international, de facto consensus planetary protection standards.
- Provides a means by which small- and medium-size nations can host a COSPAR event through the off-year symposium initiative
- Provides a mechanism for the drafting of international space-science roadmaps.

Cospar Scientific Assemblies

- 1st—London, U.K., 1958
- 5th—Washington, D.C. USA, 1962
- 14th—Seattle, WA, USA, 1971
- 19th—Philadelphia, PA, USA, 1976
- 29th—Washington, D.C., USA, 1992
- 32nd—Nagoya, Japan, 1998
- 34th—Houston, USA, 2002
- 35th—Paris, France, 2004
- 36th—Beijing, China, 2006
- 37th—Montreal, Canada, 2008
- 38th—Bremen, Germany, 2010
- 39th—Mysore, India, 2012
- 40th—Moscow, Russia, 2-8 August 2014
- 41st—Istanbul, Turkey, 2016
- 42nd—TBD, 2018 (see later)



Participation in COSPAR Assemblies



Capacity-Building Workshops

COSPAR organizes a highly popular series of capacity-building workshops with various partners in order to convey practical knowledge in areas of interest to COSPAR and to build lasting bridges between scientists. Workshop graduates are eligible to apply for follow-on capacity-building fellowships.

Scheduled workshops include the following:

- Satellite Remote Sensing, Water Cycle and Climate Change, 20 - 31 July 2014, Tver, **Russia**

Recent workshops include the following:

- Matching Oceanographic Problems of the Indonesian Seas to the Right Data Sets and Models, 13 - 22 January 2014, Bandung, **Indonesia**
- Atmospheric Correction of Earth Observation Data for Environmental Monitoring, 4 - 8 November 2013, Bangkok, **Thailand**
- High-Energy Astrophysics, 2-13 September 2013, Nanjing, **China**

Off-Year Symposia

- A new COSPAR initiative to engage small-/mid-size COSPAR member nations, i.e., those without the large facilities necessary to hold a Scientific Assembly
- The first was held on 11-15 November 2013 in Bangkok, Thailand
- Symposia are intended to be thematic and will not necessarily engage all parts of COSPAR
- The Bangkok Symposium attracted 313 registered participants and was judged to be a mixed success
- A bid to hold the 2015 symposium in Brazil is under consideration



COSPAR Roadmaps

Completed

- *Future of Space Astronomy: A Global Road Map for the Next Decades, 2012*
 - *Pietro Umbertini, Neil Gehrels, et al.*
 - *Spacebased assets urgently needed to complement ALMA, EELT, SQA, TMT, LSST*
 - *Strong support for a large X-ray space telescope and enhancement of SPICA*
- *Toward a Global Space Exploration Program: A Stepping Stone Approach, 2010*
 - *Pascale Ehrenfreund et al.*
 - *Advocates novel international human exploration program*
 - *Focused on the theme origins and evolution of the solar system and life*
 - *Emphasis placed on early phases of program and capacity-building*

In Progress

- *Integrated Earth System Science: A Roadmap for 2012-2025, 2014?*
 - Adrian Simmons et al.
 - Designed to foster interdisciplinary research making use of the diverse observations enabled by GEOSS
 - Identify activities that fully exploit observations and models to elucidate functioning and evolution of the Earth system
- *COSPAR-ILWS Space Weather Roadmap, 2014?*
 - Alexi Glover, Philippe Escoubet , Wu Ji, et al.
 - Review current space weather capabilities and identify research and development priorities in the near, mid and long term which will provide demonstrated improvements to current information provision to space weather service users.

Pasadena, 2018: Work in Progress

- Last US COSPAR was Houston in 2002
- Comments at April, 2013 SSB led to a limited, informal effort to explore possible US bid for 2020. Possible venues: Los Angeles, Denver, etc
- A few weeks ago COSPAR learned that the long anticipated bid by Sydney for 2018 Assembly would not materialize
- COSPAR Secretariat strongly encouraged US COSPAR delegation to bid for 2018 (bid due in August 2014)
- Given time pressure, activities are now focusing on Pasadena as the venue
- JPL supports bid and Lockheed Martin has expressed strong, but informal, interest in being the anchor financial sponsor
- Exploratory LOC established last week
- Stand by for developments



Thank You