

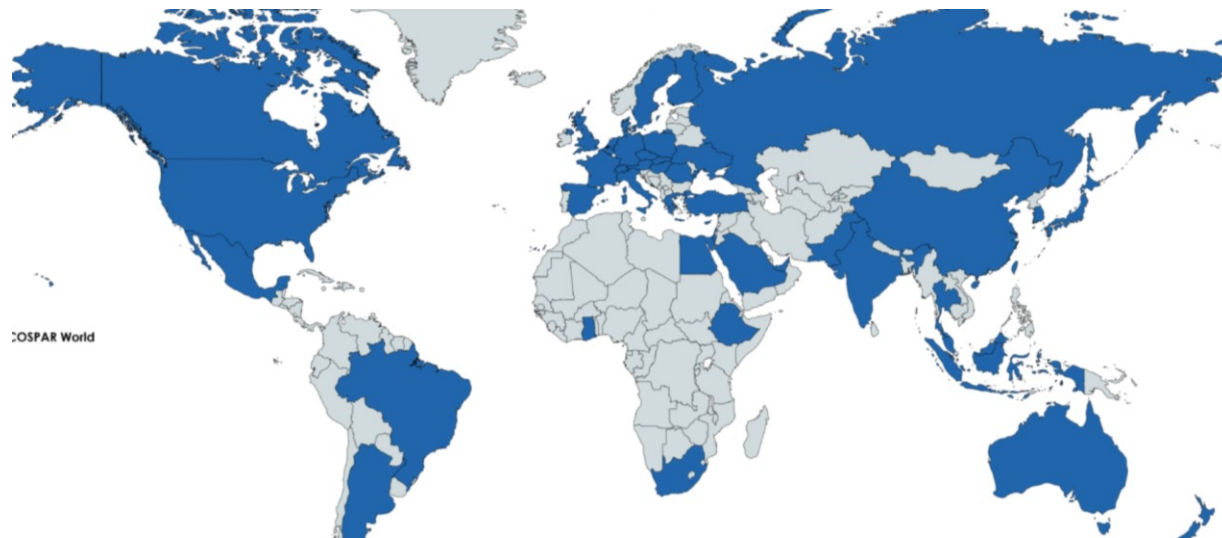


COSPAR BRIEFING

Dr Jean-Claude Worms
COSPAR Executive Director

Montpellier and Paris, France

ESSC 59th plenary meeting, The Cloud, 15 May 2020



- **45 countries**
 - **New member**
 - **New Zealand**
 - **Recently lost members**
 - **Morocco, Norway, Portugal**
- **13 International Scientific Unions**

THE COSPAR WORLD



- COSPAR promotes scientific research in space at an international level, with emphasis on the exchange of results, information, and opinions, and provides a forum, open to all scientists.
- COSPAR endeavors to ensure that a vibrant international space research effort can be conducted without impediment from geopolitical tensions or differences.
- COSPAR requires that presentations at its meetings and publications in its journals are the result of scientific research that was conducted with the highest ethical standards.
- COSPAR discloses any financial support that might be perceived as influencing its activities or positions it might advocate.
- COSPAR promotes diversity and gender equality in all of its activities, and does not tolerate any form of discrimination or harassment.
- COSPAR encourages meaningful roles in all activities for younger scientists, who are the future of international space research.

STATEMENT OF PRINCIPLES



- COSPAR promotes scientific research in space at an international level, with emphasis on the **exchange of results, information, and opinions**, and provides a **forum**, open to all scientists.
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STATEMENT OF PRINCIPLES



- **The Bureau is composed of nine members, elected for 4 years (renewable once)**
 - **Len Fisk (USA), President (second term)**
 - Karl Heinz Glassmeier (Germany) VP (first term)
 - Mikhail Panasyuk (Russia) VP (first term)
 - Catherine Césarsky (France) (second term)
 - Masaki Fujimoto (Japan)
 - Manuel Grande (UK)
 - Charles Kennel (USA)
 - Pietro Ubertini (Italy)
 - Chi Wang (China)



BUREAU MEMBERS



SC		Chair
A	Space Studies of the Earth's Surface, Meteorology and Climate	Ralph Kahn (USA)
B	Space Studies of the Earth-Moon System, Planets, and Small Bodies of the Solar System	Oleg Korablev (Russia)
C	Space Studies of the Upper Atmospheres of the Earth and Planets Including Reference Atmospheres	Takuji Nakamura (Japan)
D	Space Plasmas in the Solar System, Including Planetary Magnetospheres	Klaus Scherer (Germany)
E	Research in Astrophysics from Space	Pietro Ubertini (Italy)
F	Life Sciences as Related to Space	Tom Hei (USA)
G	Materials Sciences in Space	Marc Avila (Germany)
H	Fundamental Physics in Space	Claus Laemmerzahl (Germany)

COSPAR SCIENTIFIC COMMISSIONS



PANEL	Chair
Technical Panel on Satellite Dynamics (PSD)	Heike Peter (Germany)
Panel on Technical Problems Related to Scientific Ballooning (PSB)	Tetsuya Yoshida (Japan)
Panel on Potentially Environmentally Detrimental Activities in Space (PEDAS)	Carolin Frueh (USA)
Panel on Radiation Belt Environment Modelling (PRBEM)	Paul O'Brien (USA)
Panel on Space Weather (PSW) – is hosting ISWAT	Maria Kuznetsova (USA)
Panel on Planetary Protection (PPP)	Athena Coustenis (France)
Panel on Capacity Building (PCB) Sub-panel: Capacity Building Fellowship Program and Alumni (PCB-FPA)	Carlos Gabriel (Spain) Mariano Méndez (Netherlands)
Panel on Education (PE)	Michel Boer (France)
Panel on Exploration (PEX)	Frances Westall (France)
Panel on Interstellar Research (PIR)	Ralph McNutt (USA)

COSPAR PANELS



- **New Panel on Innovative Solutions (PoIS) – Eric Smith**
 - address new technologies for and approaches to scientific research
 - give young COSPAR Associates opportunity to get proper exposure to their new ideas and approaches
- **New Panel on Space and Social Sciences and Humanities (PSSH) – Isabelle Sourbes-Verger TBC**
 - covering such topics as space policy, history, law, ethics, economics...
 - Space and society
- **Task Group on establishing a constellation of small satellites (TGCSS) – Daniel Baker**
 - assemble an international consortium to develop, launch, and acquire data from a constellation of small satellites (COSPAR as facilitator and “honest broker”)

NEW PANELS AND TASK GROUPS (2020)



- **Revamped Associated Supporters scheme**
- **New Industry Partners**
 - Lockheed Martin (2020)
 - Northrop Grumman (2020)
 - Airbus Defense Systems, expected in 2021 (TBC)
- **New Committee on Industry Relations, directly advising the COSPAR President (Nelson Pedreiro – LM)**

INDUSTRY CONNECTIONS

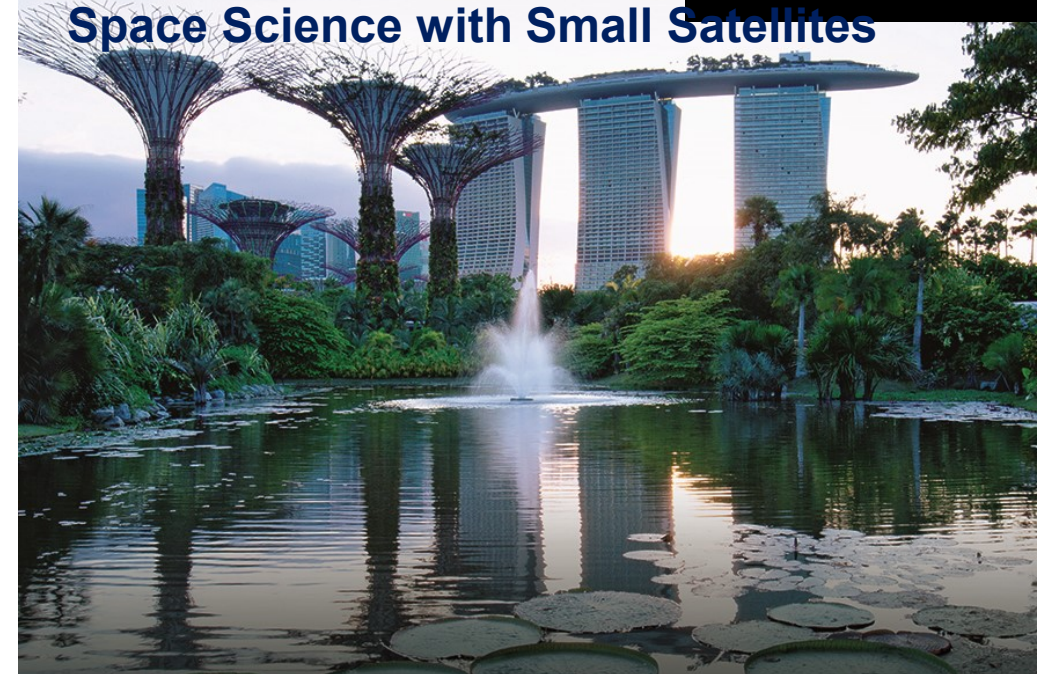
Local Organizing Committee

Chair : Prof. Amal Chandran, NTU, Singapore,
Prof. Edwin Teo, NTU, Singapore
Prof. Charles Elachi, Caltech/NTU, USA/Singapore
Mr. Lim Wee Seng, NTU, Singapore
Prof. Daniel Hastings, MIT,
Mr. Jonathan Hung, SSTA, Singapore
Ms. Lynette Tan, SSTA, Singapore
Prof. Alexander Ling, NUS, Singapore
Prof. Daniel Baker, UCB, USA
Prof. Loren Chang, NCU, Taiwan
Ms. Li Xin Leo, STB, Singapore

5th COSPAR Symposium
2021

24 – 29 October

Space Science with Small Satellites



SINGAPORE

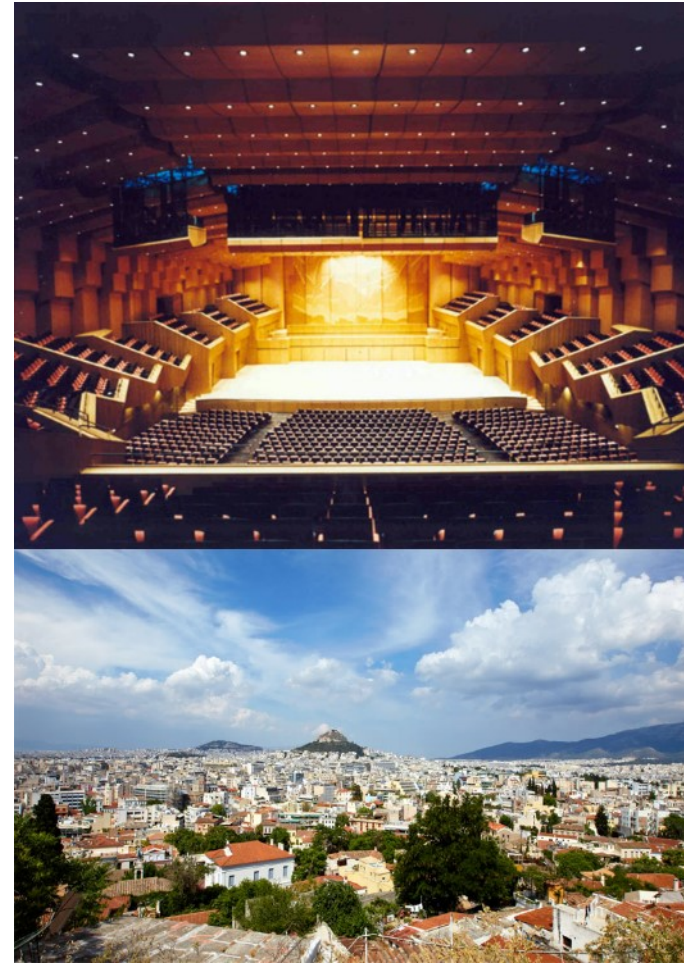
Symposium Theme:
Space Science with Small Satellites

- **Overview**
- Host Organization: Nanyang Technological University
- Host City: Singapore
- Venue: **Suntec Convention Centre**
- Dates: October 24-29, 2021



Satellite Research Centre
School of Electrical and Electronic Engineering

- Athens (Greece) will host the 44th COSPAR Assembly in July 2022 for the first time ever



44TH COSPAR ASSEMBLY (2022)



- Letter of intent from South Korea, which proposes to host COSPAR in Busan
- Decision will be taken in Sydney



45TH COSPAR ASSEMBLY (2024)



- Chart the future of COSPAR in the evolving environment
- Financial sustainability
- Increasing COSPAR' influence and impact

STRATEGIC SEMINAR CARNON, 3-4 DECEMBER 2018

ESSC 59th plenary meeting, The Cloud, 15 May 2020



RETURN COSPAR TO PROMINENCE !

Mission of the new Executive Director



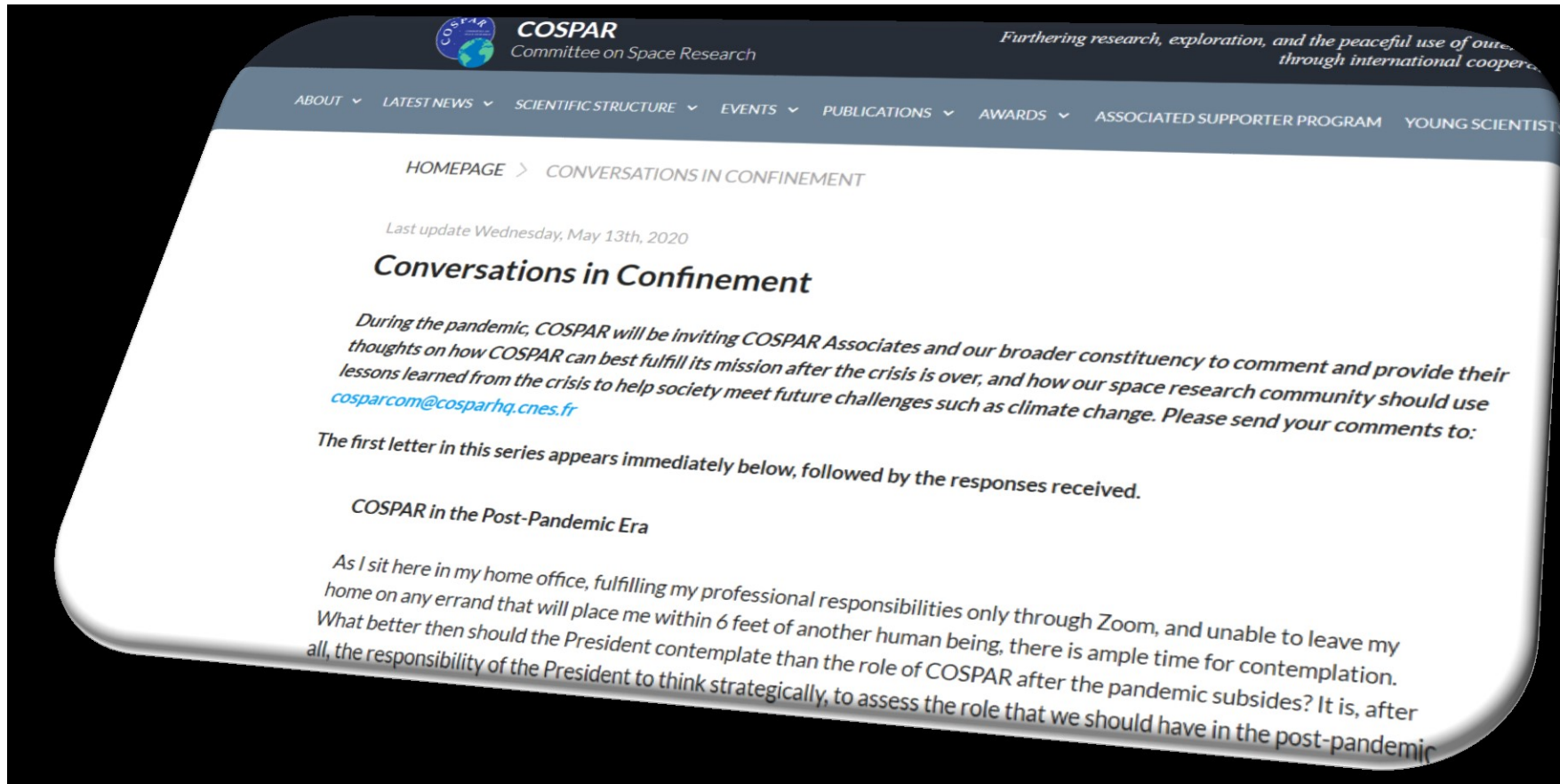
- In 1957, COSPAR was « one of one ». Now it is one of many organisations dealing with space
- Associated Supporter program reconstituted to encourage engagement with science-based global industry
 - Two new Supporter categories added: Industry Partner and Industry Supporter
 - Traditional Associated Supporter category remains (research institutions, professional associations, etc.)
- Increase Assembly value and attractiveness and communication with stakeholders (e.g. round table of space agency leaders)
- Extend partnerships with other organizations (e.g. ISC, GEO, UN, IAU, etc.)
- Several initiatives: positions, statements, more constraining roadmaps (IC, SW, etc.) and reports, that influence space agencies and challenge them to better use COSPAR with this goal in mind
- Strengthening joint activities of COSPAR and UNOOSA
- Improving COSPAR Support to Developing Space Programs
- Improving Communication (COSPAR News, social media, book series) and Journals (ASR, LSSR, SRT)

STRATEGIC PLAN



- **Scientific Assembly**
 - Abstract fee implemented
 - Scientific Programme streamlined
- **Communication**
 - New web site (+ web sites ISWAT, PCB)
 - COSPAR News (monthly e-newsletter – 3 issues so far)
 - Club of journalists “Friends of COSPAR”
- **Publications**
 - ASR and LSSR Impact Factors steadily improving
 - Book series initiated (late 2020)
- **Associated Supporters**
 - 2 new Industry Partners
- **Support to developing space programs**
 - PCB thinking about new means to support early career scientists in the future
- **New Panels and Task Group, new Advisory Committee, CSAC under reform**

IMPLEMENTATION



COVID-19...

ESSC 59th plenary meeting, The Cloud, 15 May 2020



- **Work from home? Yes, we can!**
- **Is it sufficient? Two schools of thought...**
 - COSPAR must continue to encourage IC, and tools for this are travels, assemblies, etc. **and/or**
 - change our habits, implement solutions of remote participation (listening in, off-site pitches, webinars, training courses, etc.)
- **Seems likely that we will see more social pressure to limit C footprint**
- **Budget shrinking?... (unless we find life out there)**
- **With the CG challenge ahead, science cannot remain a zero-sum game**
 - what role for COSPAR (and ESF/ESSC)?
 - How can space science contribute to (fighting) future crises?
- **Forum with other international organisations and scientists?**
- **COSPAR Task Force to reflect on new situation**
- **New PSSH panel to be put to use**

COSPAR (AND OTHER ORGANISATIONS) IN THE POST-PANDEMIC ERA



- **COSPAR ex officio in ESSC since almost 20 years (reciprocated in 2009 by R. Bonnet: J.P. Swings in CSAC, and since then)**
- **Very strong ties!**
- **Several joint projects/proposals, e.g. PPOSS**
 - **Planetary Protection**



ESSC AND COSPAR



- **COSPAR PPP re-structured in 2018 – Chair Athena Coustenis, Vice-Chairs: Gerhard Kminek (ESA) and Niklas Hedman (UN COPUOS)**
- **Comprises national representatives (space agencies) and independent scientific experts (Commissions B & F)**
- **PPP very active in updating planetary protection policy**
- **PP is a critical issue today, with involvement of new industrial actors**
- **Last meeting @ UN HQ heard from SpaceX and Blue Origin**
- **Subject evolving very quickly and facing new challenges**
- **NASA-commissioned PPIRB report AND SSB review of PPIRB report confirm COSPAR's role on planetary protection, after initial concerns...**
- **Potential joint study & MoU (UN) on preserving the Moon from contamination**

A CRITICAL ISSUE: PLANETARY PROTECTION



THANK YOU VERY MUCH