

Proposal for Forming an IAA Study Group

Title of Study:

Scope of the Space Architecture discipline revisited in response to current demands.

Proposer(s):

(Must be member(s) of the Academy M or CM)

Dr. Olga Bannova (M), Dr. Sandra Haeuplik-Meusburger (M)

Primary IAA Commission Preference:

Commission 6 Space and Society: Culture and Education

Secondary IAA Commission Interests:

Commission 2 Space Life Sciences, 3 Space Technology & Systems Development

Members of Study Team**Chair(s):**

Dr. Olga Bannova (M), Dr. Sandra Haeuplik-Meusburger (M)

Secretary:

TBD

Other Members:

(Open to members and non-members of the Academy)

Short Description of Scope of Study**Overall Goal:**

- 1) Identify and categorize the Scope of the Space Architecture discipline that responds to current space sector demands.
- 2) Identify and categorize international multi-disciplinary expert resources—both industry and government, and academic institutions—to support the advancement of space development.
- 3) Generate peer-reviewed archival information that serves as a useful reference for practitioners, students, and decision-makers and can be used as a source for developing a web site database.
- 4) Develop new strategies and methods that broaden current trends in design, and develop new integration approaches.

Intermediate Goals:

- 1) Review the results of previously published SG6.9 - The Architecture of Space: Tools for Space Development in the 21st Century (IAA 2009).
- 2) Identify sources for relevant expert data from organizations and professionals in areas of technology, structures, human factors, medicine, psychology, philosophy, the arts, system engineering and other fields that can support broad aspects of space research, design and development.
- 3) Facilitate cooperative productive networking between organizations with common interests and programs.

Methodology:

- 1) Formation of Study Executive and Member Groups drawn internationally from academia, industry and government.
- 3) Recruit participants from professional societies and organizations (IAA, IAF, ASCE, AIAA etc.).
- 4) Study Executive and Member Groups will meet at IAC in 2024, 2025, 2026, with limited meetings held at the Spring IPC in Paris.
- 5) Soliciting papers from SG members for IAA sponsored conferences and sessions.
- 6) Generating content for an interactive website format with a peer reviewed database.
- 7) Suggesting objectives for next study group development through additional meetings and on-line communications as required.

Time Line:

- 1) The Executive will meet (on-line) at the beginning of the three-year study to define the research and report outline, assign editorial responsibilities, teams and leaders of each research module.
- 2) Module leaders will coordinate their respective progress bi-monthly via telecom and interactive study group web site.
- 3) Interim results will be discussed at the IAC in Sydney. The final report draft will be discussed in during the IAC 2026. The final editorial will be conducted after SG approval of the draft. A book will be published after finding a publisher and/or sponsor.

Final Product (Report, Publication, etc.):

Executive summary book length report—for widespread distribution by the IAA—detailing findings and recommendations which will include:

- 1) Discussion of problems and “human factors” needs to be addressed for successful next step in space exploration.
- 2) Design approaches, research and other resources for designing environments to satisfy human requirements for 21st Century.
- 3) Recommendations for organizing an interactive web site with peer reviewed preliminary database identifying expert resources and state-of-the-art knowledge. In addition to print, executive summary of the report to be presented on-line on related web sites.

Target Community:

IAA, Space Agencies, Academic Institutions, Space Policy Organizations (public & private), Professional Societies, Aerospace Industry, International Community.

Support Needed:

- 1) Use of IAA web site.
- 3) Reservation of rooms for meetings during the IAF Congress.
- 4) Finding a sponsor and/or publisher for publication of the final report in a book format.

Potential Sponsors:

IAA, World Space Agencies (including ESA, NASA, CNES, JAXA, DLR), Private Industry (Boeing, Lockheed Martin, AXIOM space, Blue Origns).

To be returned to the IAA Secretary General by email to sgeneral@iaaemail.org with copy to IAA Office office@iaaemail.org

Date:

Name:

(No Signature required if document authenticated).