

## IAA Study Group: S 3.1

**Title of Study:**

**Propulsion Evolution and Roadmaps**

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**Primary IAA Commission Preference: 3**

*(From Commission 1 to Commission 6)*

**Secondary IAA Commission Interests:**

*(From Commission 1 to Commission 6)*

**Members of Study Team**

**Chairs:** Marcel POULIQUEN , Anders. HANSSON

**Secretary:** Marcel POULIQUEN

**Other Members:** Ryojiro AKIBA, Rudi BEICHEL, Bernard BROQUERE, Claudio BRUNO, Max CALABRO, Marco CAPORICCI, Ronald B. COHEN, Paul A. CZYSZ, Alain DAVENAS, François DENEU, Paul DONGUY, Christian DUJARRIC, David.G. FEARN, Guido FRENKEN, James D. GILCHRIST, Hans IMMICH, Luoisia INNOCENTI, Claude JOHNSON, Ray F. JOHNSON, Dietrich E. KOELLE, Tim LAWRENCE, Roger E. LO, Detlef MANSKI, Allan J. McDONALD, Marco MOTTA, S.N.B. MURTHY, Rajaram NAGAPPA, Michael H. OBERSTEINER, P. OUTZ, Uif PALMNAS, Stan PINKOWSKI, Vladimir PLOKHIKH, Garry A. POPOV, Marcel POULIQUEN, Vladimir F. PRISNIAKOV, Richard RAMAROSON, Jean-Claude TRAINEAU, Dominique VALENTIAN, Neil Charles WALLACE

**Short Description of Scope of Study**

**Overall Goal:** Identification, understanding and promotion of all ways able to advance Space Propulsion through international cooperation

**Intermediate Goals:**

Yearly updated roadmaps related to the overall landscape of Space Propulsion

**Methodology:** 4 permanent specific subgroups working in close cooperation with other existing groups (IAF, AAAF, AIAA,...) – Workshops, Conferences, Round Tables,..

**Creation of data basis and roadmaps**

**Time Line: Permanent Study Group meeting twice a year and updating the roadmaps and data basis from the findings of the subgroups.**

**Past Activities :**

- 1995 - IAF (Oslo) : Rudi Beichel proposes an "International Propulsion Initiative"  
Creation of the IAA/Advanced Propulsion Working Group (IAA/APWG)
- 1996 - IAF (Beijing) : First Meeting
- 1997 - Meeting at ESA Headquarters (Paris) - Report  
- IAF (Turin) – Full day meeting- Presentations
- 1998 - Two days Workshop at The Aerospace Corp. (USA) - Report  
- IAF (Melbourne) - Two Meetings and one full Session including five IAA/APWG papers (IAA 3-3-1 to IAA 3-3-5)
- 1999 - Two days Workshop at ESA Paris - Report  
- IAF (Amsterdam) – Meeting – One Session including four IAA/APWG presentations :  
IAA 3-3-1, IAA 3-3-2, IAA 3-3-4 and IAA 3-3-5
- 2000 - IAF (Rio de Janeiro) – Meeting (Report) and Presentations :
  - IAA 3-3-02 « Solid Propulsion for Space Applications : A Roadmap »
  - « Rudy Beichel : A Brief Look at the Life of an Outstanding Pioneer »
- 2002 - Joint IAA/IAF/AAAF Workshops in Versailles including one on Nuclear Propulsion and Power : Full papers and Reports on :  
[http://www.snecma.com/en/group/symposiums/aaaf\\_propulsion/index.php](http://www.snecma.com/en/group/symposiums/aaaf_propulsion/index.php)  
- Joint IAA/IAF workshop in Houston – Report and Presentations

**Final Product (Report, Publication, etc.):**

Presentations at the IAF Congress yearly

Note: in the past the session IAA 3-3 was dedicated to the presentations of the results of the Group, but in 2001 this session was cancelled by the IAA bureau

**Target Community:**

World propulsion community: Space Agencies, Industry, Labs., Universities, Space Policy Organizations.

**Support Needed:** Specific Section (members only) in the IAA Website (existing)  
Reservation of Rooms for meetings during IAF congress.

**Potential Sponsors:** Space Agencies (ESA, NASA, CNES,...), Labs (ONERA,...), Industry (The Aerospace Corp., Snecma, ...)

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**Date: 11 Sept 2003**

**Signature:  
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