

History of Rocketry and Astronautics
International Academy of Astronautics History Symposia
2001–2016

AAS History Series, Volume 49
Abstracts and Index of Papers Presented at
the International Astronautical Congresses

The International Academy of Astronautics (IAA), a non-governmental organization recognized by the United Nations, was founded in 1960. The purposes of the IAA are to foster the development of astronautics for peaceful purposes, to recognize individuals who have distinguished themselves in areas related to astronautics, and to provide a program through which the membership can contribute to international endeavors and cooperation in the advancement of aerospace activities.

Front Cover Illustration:

Dr. Hervé Moulin (1946–2016), an internationally well-known space historian, was a member of the International Academy of Astronautics (1995); Vice Chair of the IAF/IAA/IISL Advisory Committee; an active member of the IAA History Committee; and in 1999 co-founded the French Institute of Space History (IFHE). He was also on the Board of Directors of the Rocket Research Institute Inc., (RRI).

Dr. Moulin received his Doctorate from the Sorbonne University in 2012. His thesis was entitled “*La politique spatiale française, 1945-1975; Independence, innovation et dynamiques européennes.*” Among his most popular volumes for space history research is *History of Rocketry and Astronautics; International Academy of Astronautics History Symposia at the International Astronautical Congresses, Abstracts and Index 1967-2000*, Volume 31, AAS History Series. Published by Univelt, Inc. in 2009.

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History of Rocketry and Astronautics
International Academy of Astronautics History Symposia
at the International Astronautical Congresses
Abstracts and Index
2001–2016

Abstracts and Index of Papers Presented at
the Thirty-Fifth through Fiftieth History Symposia of
the International Academy of Astronautics

Å. Ingemar Skoog, Volume Editor

Rick W. Sturdevant, Series Editor

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IAA History Symposia

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AAS Newsletter (1962 -1985): Incorporated in *Space Times*.

Astronautical Sciences Review (1959 - 1962): Incorporated in *Space Times*. Back issues still available from Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

Advances in the Astronautical Sciences (1957 -): Proceedings of major AAS technical meetings. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

Science and Technology Series (1964 -): Supplement to *Advances in the Astronautical Sciences*. Proceedings and monographs, most of them based on AAS technical meetings. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

AAS History Series (1977 -): Supplement to *Advances in the Astronautical Sciences*. Selected works in the field of aerospace history. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

AAS Microfiche Series (1968 - 1999): Supplement to *Advances in the Astronautical Sciences*. Consists principally of technical papers not included in the hard-copy volume. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, California 92198.

Subscriptions to the *Journal of the Astronautical Sciences* and the *Space Times* should be ordered from the AAS Business Office. Back issues of the *Journal* and all books and microfiche should be ordered from Univelt, Incorporated.

Foreword

During more than 60 years, as a student and as a practitioner of applied history, I cannot count the many times I recalled reading something relevant to a new project. I desperately wanted to find that source! Sometimes, I was fortunate enough to resurrect the information but, more often than not, the successful search involved serendipity rather than research proficiency. Countless times, my quest involved simply pulling volumes off the shelf, one at a time, and thumbing through them until, with more than a little luck, I found what I had recollected. The process could be frustrating beyond belief!

For many years, when it came to the International Academy of Astronautics (IAA) History Series, anyone seeking a particular author, title, or theme involved what I just described. Then came, in 2009, an “abstracts and index” volume, laboriously prepared by IAA History Committee member Hervé Moulin and painstakingly formatted in final form by publisher Robert Jacobs. Remarkably, by perusing a single volume, researchers could use several different avenues to find what they sought. Whether what they needed was a specific title, anything by a particular author, something about one country, or material about a given historical era, it became easier to identify which volume in the IAA History Series contained it.

Moulin’s volume covered papers presented at the 1st through 34th IAA History Symposia (1967–2000). He was preparing a second volume to index papers presented during the 35th through 50th IAA History Symposia when he passed away in 2016. Thanks to his fellow IAA History Committee member, Å. Ingemar Skoog, who picked up the task where Hervé had left it, we now have a second index covering papers presented during 2001–2016. Together, these two index books serve as a convenient guide to all IAA History Series volumes published thus far.

From me and all future users of these indexes, “Thank you, Hervé and Ingemar!”

Dr. Rick W. Sturdevant
Series Editor
Air Force Space Command
Office of History

Preface

The first International Academy of Astronautics (IAA) History Symposia Index Book (*International Academy of Astronautics History Symposia at the International Astronautical Congresses. Abstracts and Index 1967–2000. Volume 31 of the AAS History Series History of Rocketry and Astronautics*) was prepared by Hervé Moulin and published in 2009. It contains 465 abstracts from the 1st to 34th IAA History Symposia and soon received a large interest by scholars and researchers in history of astronautics and rocketry.

A few years later the increasing size of the IAA History Symposia implied that the number of new abstracts (from 2001 and on) would by the 50th symposium in 2016 amount to about the same size as for the Index Book 1. Again Hervé volunteered to prepare a second index book for the 35th to 50th IAA History Symposia. He had started the work and adopted the software to the new book and was in the preparation of the first part, when he in April 2016 much too early passed away. He not only left a large empty space in his family and in the IAA History Community, but also a manuscript just started for the Index Book 2.

In this situation I felt a strong obligation to continue the work started by Hervé. I had the privilege to know Hervé for some 45 years. From time to time I had supported him in his continuing work of publishing books and articles on the history of IAA and the International Astronautical Federation (IAF), so this decision came as natural to me.

The material prepared so far by Hervé was made available to me by his widow Annie Moulin. Hervé left behind a well-structured program to do the job and the work was simplified by the fact that from 2001 all history symposia programs and abstracts were available somewhere in digital form, and thus much of the work was copy and pasting with permanent checking of consistency in titles, authors, affiliations and text. *In the process of this work it became very eminent what a huge amount of work Hervé must have exercised, as he had to retype most of the programs and the abstracts for the first index book.*

This second IAA History Symposia Index and Abstracts Book contains 441 abstracts and several useful indexes for the years 2001 to 2016 and brings the total number of abstracts to 906, of which some 775 papers were actually presented and are published in the IAA History Symposia Proceedings.

In the spirit of Hervé Moulin, and my own personal desire, hopefully this Index Book 2 will be just as useful a tool as Index Book 1 for scholars and researchers in their future research work in history of astronautics and rocketry.

Å. Ingemar Skoog, IAA M3
Volume Editor

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About Methodology

In 2009 the first book of abstracts from the IAA History Symposia, *IAA History Symposia 1967–2000, Abstracts and Index* (AAS History Series, Volume 31) was issued covering all abstracts (465) from the 1st to 34th IAA History Symposia.

This second book *IAA History Symposia 2001–2016, Abstracts and Index* contains all titles and abstracts (numbers 466 to 906) of papers in the program for the period 2001 to 2016 from the 35th to 50th IAA History Symposia.

To facilitate researches we have used the same methods and system of locating information as in the first book.

Symposia

Papers are presented by chronological order of Symposium and by Session. At the beginning only one Session was dedicated to the History of Rockets and Rocketry. Then, from 1983, faced with an increasing of the number of papers submitted, two Sessions were regularly organized. This interest in the history of space activities continued to grow leading to an increasing number of papers. From 1995, three Sessions became necessary to accommodate them. Later four sessions became necessary, but have in the meantime been reduced to three again.

Names of symposia coordinators, and session chairs and rapporteurs are taken from the official Congress program and might in some cases differ from the actual program due to late changes (e.g. Non-presence).

For each paper we have indicated, in addition to the IAF/IAA/IAC numbers,* a volume reference in the American Astronautical Society (AAS) History Series proceedings volumes.

The information used in this book has been taken from the official Congress CD for 2001 and 2002, and from 2003 on from the official IAC web site on the Internet.

* Official IAF/IAA congress paper numbers were first given in 1974.

Theme

In this part, we have listed papers by large thematic categories. A few of them are also subdivided into more precise sub-categories. We also note if the paper was presented as a Personal Memoir.

1. General
2. Biographical References
3. Manned Spaceflight
4. Organizational Histories
5. Rocketry
6. Scientific Research
7. Technical Aspects
8. Satellites and Spacecraft.