

History of Rocketry and Astronautics

**Proceedings of the Forty-Fourth History Symposium of
the International Academy of Astronautics**

Prague, Czech Republic, 2010

Kerrie Dougherty, Volume Editor

Rick W. Sturdevant, Series Editor

AAS History Series, Volume 41

A Supplement to Advances in the Astronautical Sciences

IAA History Symposia, Volume 30

Copyright 2014

by

AMERICAN ASTRONAUTICAL SOCIETY

AAS Publications Office
P.O. Box 28130
San Diego, California 92198

Affiliated with the American Association for the Advancement of Science
Member of the International Astronautical Federation

First Printing 2014

ISSN 0730-3564

ISBN 978-0-87703-607-4 (Hard Cover Plus DVD)
ISBN 978-0-87703-608-1 (Soft Cover Plus DVD)

Published for the American Astronautical Society
by Univelt, Incorporated, P.O. Box 28130, San Diego, California 92198
Web Site: <http://www.univelt.com>

Printed and Bound in the U.S.A.

Contents

	Page
Foreword	vii
Preface	ix

PART I

The International Academy of Astronautics: Origin and Early Years

Chapter 1. Origins of the International Academy of Astronautics— Personal Memories of Les Shepherd, John Becklake	3
Chapter 2. The Creation and Institutional Development of the International Academy of Astronautics, Vladimir Kopal	9
Chapter 3. An Overview of the U.S. Founding Members of the International Academy of Astronautics, Lance Warden	19
Chapter 4. The Swedish Interplanetary Society (1950–1969) and the Formation of IAF and IAA, Å. Ingemar Skoog	39

PART II

Memoirs and Organizational Histories

Chapter 5. Ernst Stuhlinger, A Historian, Charles A. Lundquist	63
Chapter 6. A. V. Cleaver, OBE, (1917–1977)—A Biography, Andrew Chatwin and John Becklake.	77

	Page
Chapter 7. Ary Sternfeld and Modern Cosmonautics, Vyacheslav V. Ivashkin	101
Chapter 8. Miguel Sánchez Peña (1925–2009): Organizer of Space Activities in Argentina, Pablo de León and Miguel Alejandro Sánchez Peña Jr.	127
Chapter 9. Academician Vasiliy Sergeievich Budnik—One of the Founders of Space Rocketry in Ukraine, Olexandr Novykov and Stanislav Konyukhov	141
Chapter 10. N. F. Gerasyuta and His Scientific and Technical School (To the 90th Anniversary of His Birth), Irena Fedorenko and M. Kaliapin	157
Chapter 11. Organizational Review of Half a Century History of ISAS, Yasunori Matogawa	177

PART III
Science and Technology Reviews

Chapter 12. Assessing Space Program Impacts of the IGY, Å. Ingemar Skoog and Stephen E. Doyle	205
Chapter 13. The Space Policy of the Nixon and Ford Administrations: Another Détente Diplomacy through Project Apollo and ASTP, Hirotaka Watanabe	217
Chapter 14. Relevant Analysis of the Innovative Conrad Haas Manuscript from 1555, Alexandru Todericiu, Radu D. Rugescu and Istvan Lorincz	233
Chapter 15. Rocket History through an Artifact: American Rocket Society (ARS) Test Stand No. 2 (1938–1942), Frank H. Winter	243
Chapter 16. From Maruca to Masurca: A History of the French Navy’s First SAM, Jean-Jacques Serra, Jean Robert and Philippe Jung	275
Chapter 17. Dassault Aviation’s Aerospace Transporter: A Historical Perspective, Philippe Coué and Michel Rigault	305

	Page
Chapter 18. The Satellite That Almost Was: Abir (Knight), the First Indigenously Designed Satellite of Israel, Inbar Tal	315
Chapter 19. UK X-ray Research and the Spacelab 2 X-ray Telescope, Douglas J. Millard	323
PART IV	
Contributions to Astronautics in the Former Czechoslovakia	
Chapter 20. Beginnings of Rocket Development in the Czech Lands (Czechoslovakia), Michal Plavec	337
Chapter 21. Artificial Satellite Observations and Their Scientific Usage in Czechoslovakia, Ladislav Sehnal	349
Chapter 22. Contribution of Charles University to Investigations of Solar-Terrestrial Relations, Z. Němeček and J. Šafránková	357
Chapter 23. Solar Physics Space Research in the Czech Republic, František Fárník	385
Chapter 24. A Brief History of the Development of Scientific Instruments for Ionospheric and Magnetospheric Research, Magion Satellites, Frantisek Hruska, Pavel Triska and Jaroslav Vojta	395
Chapter 25. Life Science Space Research in Czechoslovakia and Slovak Republic, L. Macho, R. Kvetnansky, I. Ahlers, E. Mišurova and F. Hlavacka	413
Chapter 26. Results of the Laboratory Simulation of Long-Lasting Spaceflights in the Czech Republic Including Former Czechoslovakia, Jaroslav Sýkora, Josef Dvorak, Radvan Bahbouh, Katerina Bernardova and Karel Justa	431
Index	439
AAS History Series	445
Interview with Dr. Leslie (Les) Shepherd, by John Becklake, June 2010, Dorset, England (See the DVD supplement associated with this volume)	