

History of Rocketry and Astronautics

AAS History Series, Volume 51
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Front Cover Illustration:

Krafft Arnold Ehricke (1917–1984): Krafft Ehricke was born in Berlin and came in 1947 to the United States with the Operation Paperclip group of German rocket scientists. In his career he was devoted to most aspects of rockets and space science with a large number of publications. At the 7th International Astronautical Congress, in Rome, 17–22 September 1956, Krafft Ehricke was awarded the first International Astronautical Federation (IAF) Guenter Loeser Memorial Medal for his paper “*The Satelloid*” presented at IAF 6th International Astronautical Congress, Copenhagen, 1–6 August 1955 (Astronautica Acta vol. 2 no. 2, 1956, pp. 63–100).

This photo was taken by Frederick C. Durant III, IAF president 1953–1956.

Source: IAF, Paris and Marsha Freeman, Leesburg, Virginia, USA.

Note: A satelloid was a powered vehicle operating in orbits at 100 to 150 km and below the satellite orbits.

History of Rocketry and Astronautics

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the International Academy of Astronautics**

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Hannes Mayer, Volume Editor

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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

The Fifty-Second History Symposium of the International Academy of Astronautics was held in conjunction with the Sixty-Ninth International Astronautical Congress (IAC) in Bremen, Germany, during the first week of October 2018. As I perused the titles of the papers from that symposium, presented as edited chapters in this volume, I once again found myself musing over the chronological and topical breadth of what fascinated the authors. Furthermore, as in the past, the thoroughness and professionalism of each author's research impressed me. I trust readers will find much to whet their historical curiosity and to expand their knowledge about rocketry and spaceflight.

When I pondered the chapters in Part IV about the Apollo program and putting a human on the Moon, I noticed a few references to the manned *Apollo 8* mission, the first crewed spacecraft to leave Earth orbit, in December 1968. A little contemplation sparked personal recollections of that and SCORE—Signal Communications by Orbiting Relay Equipment—a US space project that marked the successful launch, in December 1958, of the world's first communication satellite. How well I remember sitting in front of our television on 24 December 1968 and listening to the voices of the three *Apollo 8* astronauts—Bill Anders, Jim Lovell, and Frank Borman—as they took turns reading the first ten verses from the Book of Genesis—the creation narrative from the King James Bible—while orbiting the Moon. Even as families across the United States and around the world celebrated the holidays, many kept an eye on the television coverage as those pioneering humans celebrated from nearly 250,000 miles in outer space.

It did not take me long to remember, and compare with *Apollo 8*, the SCORE mission. I cannot recall whether I first heard President Dwight Eisenhower's voice from Earth orbit via our radio or recently acquired television, but I do know hearing the first broadcast of a human voice from outer space of a human voice definitely impressed an eleven-year-old boy. The achievement of the technological triumph and of the president's sincerity in using that achievement, on 19 December 1958, to send "America's wish for peace on earth and goodwill to men everywhere" thrills me more than six decades later.

Hopefully, the content of this volume will spark a host of other special recollections among its older readers. As for younger readers, who naturally have fewer personal memories from a shorter time on Earth, this volume should help bring history to life. As students of history know, paying attention to detailed narratives about past events can make anyone wiser than their years.

Dr. Rick W. Sturdevant
Series Editor
United States Space Force
Office of History

Preface

The 2018 History of Astronautics Symposium brought together presenters on space history topics from all over the planet for the 52nd History of Astronautics Symposium held in conjunction with the 69th International Astronautical Congress in Bremen, Germany.

This annual gathering of space historians took place in a city that rightfully labels itself a “space city,” being the home of several important aerospace companies. It was, therefore, regrettable that our traditional session on the host country could not take place in the ordinary way. But the organizers did eventually come up with a way to compensate for this situation. Distinguished industry representatives joined the session to talk about the German contributions to astronautics after World War II.

I would like to express my gratitude to the IAA History Committee and the series editor for the privilege of contributing to the preparation of this volume.

Hannes Mayer
Volume Editor

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