



In the Footsteps of Columbus

European Missions to the International Space Station

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“First weigh then try” is an old publisher’s slogan which is very applicable for this book.

European human spaceflight is the topic of this fine book and encyclopedia. What a research effort! In the foreword the author John O’Sullivan explains: “The history of European human spaceflight is not as straightforward as its American or Russian counterparts. Europe wasn't a competitor in the 'space race'. As a collection of nations with different languages, cultures and goals, the vision for space has been complex. As Europe isn't a single country with a manned space program, European citizens must 'hitch a ride' to get into space. This has resulted in many different routes to orbit.”

The author endeavors to set the scope as wide as possible i.e., accumulating all European human spaceflights counting in basically all European Union (EU) member states – although they were not part of the EU yet in the early Salyut - and Mir space station days. As the author explains, he “excluded all cosmonauts from European Russia west of the Urals” because this would have complicated the matters even more.

Part 1 of the book gives a thorough accounting of all the “before ISS” facts, astronaut/cosmonaut missions and transport vehicle aspects of the relevant flights “before the ISS”. According to the author’s definition the European ISS era began with Umberto Guidoni’s STS-100 shuttle mission to the ISS in 2001.

Part 2 covers the 18 European missions to the ISS during the period 2001–2011 in a level of detail which sometimes looks like the on-board diary of an astronaut. This includes not only the list of all “wake-up” songs during a particular mission, but also the detailed description of the astronaut’s daily work load – including the description and significance of the experiments the astronaut conducted during his flight. This part really is presenting “facts, facts, facts”, i.e. this is no material to be read through in a consecutive way but I think the most benefit is gained by using it like an encyclopedia, and that is one of the many merits of the book: it presents all – literally all – facts of a particular mission. So it is predictable that this part 2 will become the “official” history-compress for the 18 European missions flown to the ISS, not to be found anywhere else in this compactness.

The final part “The next Generation” covers briefly the flights to the ISS from 2011 onwards until printing deadline in 2015.

Having explained the overall structure of the book I would like to remark again that there are several ways to read this book – it certainly is not a book you start reading through from the beginning. My recommendation would be to start reading the introductory chapters which will help you to appreciate the contents – and don’t get discouraged by the “Acronyms” chapter!

The author O’Sullivan opens up some new perspectives even for those space enthusiasts which have been involved in the (European) space business since 1969, like myself. It was interesting for to learn that the Apollo Astronaut Mike Collins was born in Rome, Italy and could accordingly be counted as the first European orbiting the Moon (!).

As O’Sullivan points out in his foreword the ways of European human spaceflight were not straightforward since the “Europeans” started out not having a joint Astronaut corps nor a launch vehicle nor a joint space agency (ESA was established in 1973), however a strong desire to partake in human spaceflight endeavors. This was a really exciting time and a lot of activities were going on while every European country jockeyed for a good position in the space exploitation adventure. In his “prelude” (before ISS) O’Sullivan researched all the relevant missions and describes them: Interkosmos, ESA and non-ESA Shuttle and Spacelab missions, ESA and non-ESA Soyuz missions and the first UK mission (Helen Sharman, funded by UK-industries) in chronological order from a true European point of view – and it reveals an amazing list of “firsts”:

The first European Cosmonaut was the Czechoslovakian Vladimir Remek (Interkosmos program, Salyut 6, March 1978), the last flight in the Interkosmos program was another first – the flight of Sigmund Jaehn as the first (East-) German cosmonaut, in August 1978. Franz Viehbock was the first Austrian on the Mir station (October 1991), the first (West-) German on the Mir was K. D. Flade (March 1992). Of course also during this time Ulf Meborld’s flight on the Shuttle (First SpaceLab flight, 1983) and the D-1 (1985) and D-2 missions (1993) took place.

So not only the European pioneers (Sigmund Jähn, Ulf Merbold and Viehboeck) are mentioned but also the Interkosmos program astronauts/cosmonauts which by now tend to be forgotten, but contributed their fair share to the European space program. In particular it is appreciated that not only their “flight data” are recorded, but also the basic and fundamental experiments they conducted to “push the envelope”.

As mentioned part 2 of the book list all the details you ever want to know on a consecutive flight-day-by-day basis and with detailed experiment descriptions for the 18 ISS missions within the time period 2001 – 2011. The European missions are: STS-100 (Umberto Guidoni), Andromede (Claudine Haignere), Marco Polo (Roberto Vittori), STS-111 (Philippe Perrin), Odissea (Frank de Winne), Cervantes (Pedro Duque), DELTA (Andre Kuipers), Encide (Roberto Vittori), Astrolab (Thomas Reiter), Celsius (Christer Fuglesang), Esperia (Paolo Nespoli), Columbus I (Hans Schlegel), Columbus II (Leopold Eyhards), Oassis (Frank de Winne), Alisse (Christer Fuglesang), Magisstra (Paolo Nespoli), DAMA (Roberto Vittori), Promise (Andre Kuipers).

Awesome – isn’t it? Besides the mission descriptions you get the description and high-res images of the launch and transport vehicles, crew photos and mission patches as well as the career descriptions (education, training and present post) of the astronauts and some personal impressions and experiences of the astronauts and their crew mates.

O’Sullivan’s book gives an unprecedented overview of the European space activities since the early 1970’s up to the turn of the century (2000) in Part 1 and provides a consistently, painstakingly researched summary of the European ISS activities between 2001 – 2011 in Part 2.

Reading part 1 is a pleasure because it even provides surprising details for “insiders” and gives you the “grand picture”. Part 2 is a treasure chest for details of all the European missions conducted during this time period – I would recommend to use it like an encyclopedia. The various acronym, index and bibliography chapter helps to pinpoint quickly what you are looking for.

I had the opportunity to review the e-book version of the book and using the included search mechanisms sped up the “browsing” within the text tremendously – we are talking about over 400 pages in a 16,5cm x 24cm format.

This book should belong to the library (or notebook) of every space-enthusiast, space engineer or layman interested in European space exploration. It should be within easy reach to be consulted as often as possible - you always glean something new.

October 2016, Joachim J. Kehr, Editor SpaceOps News for the “Journal of Space Operations & Communicator” (<http://opsjournal.org>)