Foreword and Acknowledgements

After the publication of the 4th edition at the end of 2001, I continued updating of my docu-
mentation work as a retiree at home — not for any 5th edition — but rather for eventual
electronic update versions of the book.

The website documentation of the “history,” i.e. the 1st chapter of the book, presents a con-
siderable update of the version published in the 4th edition [enlargement from 150 to 634
(Jan. 8, 2007), to 635 (Apr. 11, 2007), to 642 (July 4, 2007), to 649 (Oct. 1, 2007), to 677 (Feb.
7, 2008), to 682 (April 4, 2008) to 703 (July 1, 2008) to 732 (Oct. 2, 2008), to 742 (Jan. 4,
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2010), to 825 (April 1, 2010), to 841 (July 1, 2010) to 857 (Oct. 1, 2010), to 883 (January 1,
2011), to 896 (April 1, 2011), to 905 (July 4, 2011) to 915 (Oct. 13, 2011), to 928 (Jan. 2,
2012), to 956 (July 25, 2012), to 971 (Oct. 16, 2012), to 979 (Jan. 3, 2013), to 992 (April
02,2013), to 1002 (July 01, 2013), to 1017 (Oct. 1, 2013), to 1033 (Jan. 2, 2014).

The intent is to provide the reader with context information and historic background on
some topics of technology introduction in spaceflight. The thematic approach led also to
multiple mentioning of instruments, missions, observation techniques and/or technologies
in various contexts of the documentation. Hopefully to a better overview and understand-
ing of the subject matter. The history is told in a very condensed (almost abstract) fashion to
keep it manageable to all involved.

In spite of all efforts — I am quite aware of the fact that my history is incomplete and a bit
lopsided in favor of the western spacefaring nations. In particular, it does not reflect proper-
ly the accomplishments of the Soviet/Russian space program in the field of Earth observa-
tion. This is definitely not intended. The unavailability (and/or non—existence) of docu-
mentation on the Russian space program with regard to sensor developments is the prime
reason for this deficit. My requests for reviews, for critical comments and for background
information on particular topics were only of very limited success. The language barrier, the
secrecy of the past political system, the heritage of a military—dominated space program,
and the working habits of the Russian research community are at the root of the problem.
The nature of any reliable history depends, however, on access to multiple information
sources for checks and cross checks for verification.

A further intent of this electronic version of the history is to get in contact with the reader commu-
nity. A feedback could certainly help to eliminate some errors and to update those topics in ob-
vious need of correction/elaboration. However, experience with the first electronic version in the
first 3—month period resulted in a total return of two e—mails (out of over 6000 website con-
tacts).

I am aware of the fact that the history alone contains more than two thousand references.
Many of them are simply URL (Uniform Resource Locator) labels of the Internet and as
such rather unreliable sources. They may be changed or deleted by the provider — making
them eventually inaccessible to the reader. The situation reflects actually the fast—chang-
ning environment of today. Sometimes this is the only access available to me (I always try to
get published references). I am also aware of the vast amount of acronyms used in the text.
Well, this is the way things are conveyed today among the people involved. For this reason, I
have added Appendix B “Acronyms and Abbreviations” that should provide a fairly reliable
look—up source in case of need. Frequent use of the history should give the reader a certain
degree of familiarity with the acronyms and the language of the global survey. In addition, a
“Glossary” (100+ pages) has been added as of April 11, 2005.

In November 2003, I was very fortunate in receiving an offer of financial support from ESA/
ESRIN (Gunther Kohlhammer). The objective is to continue updating of my extensive docu-
mentation database in Earth observation and to place the mission and instrument descrip-
tions successively onto the Earth Observation Portal of ESA/ESRIN (whenever the infor-
mation is sufficiently stable and verified). I am grateful for these new developments and hope to be of service to the reader community.

In July 2009, the “Current Table of Contents” was retired and will not be updated anymore. The reason: I am encountering lately problems in file handling on my desktop. I suspect, these problems are due to the fact of different format widths that I am using for publishing a book — and for publishing the project files for the eoPortal (and the generation of a new Table of Contents requires the standard book format in the current version).

The online service of the eoPortal was not available in the timeframe March 27 to July 24, 2012. In this period, ESA upgraded its system hardware and software and modernized the access schemes. Throughout this period, I was able to continue my documentation work, submitting over 130 files with updates and to add some new missions.

Gilching, January 02, 2014

Herbert J. Kramer

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