

Book review

Observation of the Earth and its Environment; Survey of Missions and Sensors (4th edition) by H. J. Kramer (Springer-Verlag, 2002) ISBN 3-540-42388-5. US\$199.

This very large tome (1,510 pages) is perhaps the most complete reference book on satellite missions and sensors ever printed. It also includes details of numerous airborne missions and sensors, but presumably because of the need to keep the book down to an affordable cost, this section is contained on a CD-ROM included with the book. Usefully, the CD-ROM contains the whole book and not just the extra information relating to airborne missions. Of course the value of a book does not simply rest with the number of pages it contains. I found the book full of useful and accurate information and an excellent resource.

A good test for any reference book is to look for some well-known and some little-known topics and see how the author has dealt with them. I did this and found the book passed this simple test with flying colours. I even checked for some local content, by checking the entry for SOCEX (the Southern Ocean Cloud Experiment) – an Australian-based experiment that made use of some airborne sensors. The entry was there and the information accurate. There were also entries for some locally made airborne sensors systems, but of course no local satellite sensors – we don't make any.

This work is in its 4th edition. I have to admit I was not aware of the previous editions, which were sponsored by the German Remote Sensing Data Center. The author states he had some difficulty getting sponsorship for producing this edition; thankfully he succeeded and has left us with this excellent resource. This really is a mammoth piece of work: the acknowledgments and foreword alone run to 6 pages, and the table of contents is 21 pages long! The foreword is quite delightful and worth reading by any

would-be author: Kramer provides us with advice like '... growing a few vegetables in the garden is more profitable than book-writing.'

The book starts with a brief history of Earth Observation – a new section in this edition. It is then organised into parts from A–O (that's 15 parts) that cover satellite missions and sensors under some kind of generic heading. For example, missions like Landsat, SPOT, Radarsat and ENVISAT (only launched in early March 2002) come under Earth Observation, while the TIROS-series, DMSP and NOAA missions fall into Meteorology – LEO (low earth orbit), and GMS, METEOSAT and GOES fall into Meteorology – GEO (geosynchronous earth orbit) missions. Parts P and Q contain information on airborne missions and sensors. There are also two Appendices – one contains a very comprehensive list of acronyms and abbreviations. Much of the information is, by its nature, dry and technical. If you want to know the sun sensor used on the Solar-Occultation FTS for Inclined-Orbit Satellite – SOFIS for short, then it's there (in Table 69). A book as large as this cannot be read from cover to cover and, in any case, is not intended to be used like that. It contains a complete electronic version as a PDF file. The file is searchable and is easy to navigate using the book-marks. The hardcover book is beautifully produced; the typeface, although small, is sharp and legible and the figures are clear. I'm impressed with this reference book and would recommend it very highly to all students and researchers with a serious interest in Earth Observation using satellite and airborne platforms.

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