

## Book reviews

---

**The Cambridge Dictionary of Space Technology**, Mark Williamson, Space Technology Consultant, Cambridge, UK (ISBN 0-521-660777), 2001, 464 pp

This book is more than a dictionary. In addition to being a comprehensive dictionary it is a compendium of terms and their definitions of considerable utility to authors in the field. For those quite familiar with space technology it is useful to have a definitive source to check against. For those not so familiar with the terminology of space technology, it is an invaluable resource. It is well-organized. In addition to the 400+ pages of definitions, to make it easier for the reader to use, there is a "Classified List of Dictionary Entries" which is organized into thirteen categories, covering all the major aspects of space technology. It is a very useful reference book.

**Mobile Communications**, Hideichi Sasaoka, ed., Ohmsha, Tokyo (ISBN 4-274-90380-X), and IOS Press, Amsterdam (ISBN 1-58603-100-7), 2000, 306 pp

This book is part of the Wave Summit Course series of seven volumes, addressing the various aspects of radio communications technology and related areas of radio science that have been the especial province of studies over the past 100+ years at Japan's Ministry of Posts and Telecommunications famed Communications Research Laboratory. The book was first published in Japanese in 1997 by Ohmsha. For achiev-

ing a worldwide distribution this English translation is co-published with IOS Press. This book is aimed at senior and graduate students in the field of satellite and space communications (hence each chapter ends with a brief section of questions). While technical in perspective, it is not burdened with too many lengthy derivations. It is rich with examples of the technologies discussed, and draws heavily but by no means exclusively on the ample experiences at CRL. It deals solely with land mobile communications and does not deal at all with mobile communications using satellites. As such, it is of limited direct utility to those of us active in satellite and space communications. However, for those whose work in satellite/space mobile communications, requires us to interface with land mobile communication systems, it is a very useful reference. Chapter 1 (Introduction) gives a background and overview; Chapter 2 covers the vital subject of radio wave propagation. Chapters 3, 4, and 5 cover modulation methods, systems and spectrum efficiency. Chapter 6 covers zone configuration and channel assignment. Chapters 7, 8 and 9 address CDMA, transmission quality and diversity reception respectively. Chapter 10 covers error control techniques. Chapters 11 and 12 address adaptive equalization and adaptive array methodologies, respectively. The book abounds in useful figures and tables and each chapter concludes with a list of useful references.

Geoffrey Hyde