By The UK MOD's Development, Concepts and Doctrine Centre

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Reviewed by Ian Shields

The UK MOD's think-tank, the Development Concepts and Doctrine centre (DCDC) have already published some good work, including their paper on the Future Character of Conflict and their 2009 Future Air and Space Operational Concept (both available from the web-site listed above). Having identified a need for a textbook on space, given the ever-increasing reliance on space for contemporary military undertakings (one thinks of surveillance, satellite communications, weather forecasting, GPS for navigation and weapon guidance, and much more), the DCDC set about writing, from first principles, their UK Military Space Primer some two years ago, and have now completed the task. There is much to praise, not just about the product, but about the vision and initiative that led to this publication, but let me start with a few criticisms. First, for understandable reasons it is titled the Military Space Primer and, indeed, has a military bias. But the vast majority of the text is as applicable to the civilian sector as to the military. Second, what a shame that, again for understandable reasons, this could not have been published commercially as it is the best and most complete explanation of Space and its uses that virtually anyone would require, and deserves a wider audience. Certainly, any A-Level student with an interest in Space would benefit greatly from reading this, and it would not be out of place in any school – or, indeed, University – library.

Some 250 pages long, it takes the reader at a sensible pace, is well-written and copiously illustrated with photographs and excellent diagrams. Divided into four chapters, it starts with an explanation of what space is, an easily-digestible section on geometry and orbitology (no advanced mathematics – in fact, barely a formula in sight!), before translating the theory into the practical: which orbit for which capability and how to get there. The short second chapter covers Space and the Law at sufficient depth for the non-specialist (see the book review on Space Law: A Treatise in the June 2010 edition of Aerospace Professional for a truly in-depth book on Space Law), before the heart of the Primer, Chapter Three on the Military Uses of Space. Each use, be t surveillance or communications, is addressed in clear and concise language, that unravels the mysteries of the advantages and disadvantages of Space. Indeed, it is not even necessary to have read the explanatory Chapter One before dipping into Chapter Three. Again, although aimed at the military reader, for anyone with an interest in how pace can be used, if only where does your Sky Satellite Signal come from, will gain from this Chapter. The final Chapter looks more widely at Space and Society highlighting, for example, how dependent civil society is on Space – and if there is a justification for the non-military to read some of this Primer, it is in Chapter Four. A series of more in-depth annexes follow, and the publication ends with a good bibliography.

Extensively cross-referenced throughout, this Primer is not meant to be read at a single sitting, but dipped into for knowledge and education. Those in the wider Space industry will, I am sure,

welcome this Primer and use it to educate those new to their business. Those with no knowledge but an interest, those with some knowledge and a wish for more detail, and even those with a deep understanding will all find value in this timely and well-produced piece. Not a book in the conventional sense as normally reviewed on these pages, but nevertheless a significant and welcome addition to our understanding of Space.