
It has been 10 years since the 2nd edition of Aviation Medicine was published, and so the 3rd edition is a timely arrival with which to enter the next millennium. As a 1984 diplomate of the Royal College of Physicians’ Diploma in Aviation Medicine, I can vouch for this book’s usefulness and I would still recommend it as the essential “bible” for medical practitioners following a full or part time career in operational or clinical aviation medicine.

The book has undergone revision of its structure with the addition of some topics but also regretfully some omissions from the previous editions. Both enhancements to the 3rd edition and its deficiencies will be addressed in this review. It is divided into three logical subdivisions: aviation physiology and aircrew systems, clinical aviation medicine, and operational aviation medicine.

The first part is a compilation of the essentials of aviation physiology. Where the hazards are specific to aviation, e.g. hypoxia and long duration acceleration, the content is definitive and based upon both national and international research and development. In the less aviation-associated areas, e.g. the thermal environment, the essential details are discussed but quite rightly, the reader with a specialist interest is directed to more comprehensive publications. The graphs, figures and illustrations are well presented—clearly, an information technology enhancement in such a scientific book.

The first chapter of the part on clinical aviation medicine: medical standards for aircrew is a well written and up to date discourse on both the UK civilian and military concerns and also introduces the reader to the harmonisation process initiated by the European Joint Aviation Authorities. Most of the other chapters now include the rationale for risk assessment of a medical condition rather than merely advice on their management in the aviator. This is most welcome in this increasingly litigious age, and will enable the practitioner to convince the management that controls are necessary. Previous editions are updated by both the inclusion of advances in both clinical investigation and the inadvisability of accepting aviators into military flying following some of the recent surgical techniques (e.g. radial keratotomy).

The final part, operational aviation medicine comprises an appropriate amalgamation of both military and civilian aviation medicine issues—in particular, how to keep the job fit for the aviator as opposed to how to keep the aviator fit for the job. The addition of recent advances in the behavioural sciences as they relate to aviation (e.g. crew resource management) is particularly welcomed. The topical issue of “air rage” hit the headlines too recently to be included in this edition! Whilst most chapter references in this part can be easily obtained by the interested reader, by virtue of its military nature in some aspects, there are regrettably some references that are not readily available in the public domain (e.g. Institute of Aviation Medicine (IAM) and Defence Research Agency (DRA) reports). This should be rectified in future editions, but in the meantime, civilian readers should approach the book’s editors to obtain references if necessary.

It is unfortunate that a chapter on “the medical aspects of special types of flight” has been omitted from this edition. Whilst some forms of flight, e.g. supersonic transport and space flight remain “uncommon”, both the civilian and military use of helicopters has increased dramatically over the last decade. Recent literature reports suggest that some aspects of rotary-wing operational aviation medicine are radically different from the fixed wing experience (e.g. spatial disorientation). There is some reference in various chapters, but a more comprehensive description would be highly desirable. Furthermore, little mention is made throughout the book to Navy and Army military flying. Although there are some similarities, aviation medicine is far from being the sole prerogative of the Royal Air Force and civilian aviation.

It is stated in the Forward of Aviation Medicine that this book is intended primarily for the experienced (medical) practitioner engaged in military or civil aviation medicine. It is probably therefore only of reference value to occupational health professionals who are not thus employed. Its immediate relevance to the occupational hygienist is particularly dubious, and I therefore recommend that unless you are employed in the aviation industry, you know where to find the book, rather than spend £95.00 to have it on the shelf.

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