Book reviews

Man in extreme environments. By A W Sloan. (Pp 132; \$12.75). American Lecture Series. Charles C Thomas; Springfield, Illinois.

The way man adapts and comes to terms with extreme environments is a subject interesting in its own right and of fundamental importance to industry, recreational organisations, and the military. Professor Sloan in a modestly sized text has tried to provide the basic information on most of the extreme environments man enters. The two main homeostatic mechanisms of temperature regulation and respiration are dealt with first, providing the necessary physiological background. The extreme environments are then dealt with—heat, cold, deep water, mountains, aviation, and space flight. There is an excellent bibliography and an index that add to the value of the book.

The style of writing is that of a lecture note approach. Every sentence is a fact culled from the literature without any discussion of its interpretation or indeed whether it is correct or not. This style of writing leads to ambiguous statements and the method of data collection to inaccuracy. For example, the statement is made that "in an environment saturated with water vapor *evaporation from the skin* does not occur." In only one well-defined circumstance does evaporation not take place into saturated environments, and the physiological control of the "wetted surface area" enables the body to control evaporation independently of the water vapour pressure until the skin is totally covered with sweat. These aspects of temperature regulation are fundamental to an understanding of hot environments and should have been dealt with. Another serious error is made when dealing with the treatment of hyperthermia. The treatment given is to place the patient in ice. It has been known for many years that during the body cooling process the cutaneous blood vessels have to be maintained in a dilated state, and excessive cooling, which induces vasoconstriction, is counter productive.

Similar errors occur throughout the

book, errors that could have been so easily avoided if somebody working in the respective areas of physiology had vetted the manuscript. In a book that is essentially a collection of factual notes it is important that the notes are correct. The coverage of the extreme environments met in industry is sparse, and the book provides the background to them rather than specific information and advice. Nevertheless, the book is a very useful summary of the field.

G W CROCKFORD

Review of Radiation Protection of the Patient—Part 1 Diagnostic Radiology. (Pp 61; no price). British Institute of Radiology and the British Radiological Protection Society. 1979.

This short publication is aptly subtitled "A Manual of Good Practice" and represents the views of a panel of representatives from the major bodies in Britain who are concerned with radiation protection. The book deals solely with diagnostic radiology and is a timely contribution in view of the increasing amount of medical irradiation and enhanced public concern about this. Furthermore, though we may expect in the near future a new set of regulations and a code of practice under the HSW Act, these do not cover members of the public represented in this context by the patients, who receive the greatest proportion of this important category of radiation.

Though the authors have used everyday language, the publication is directed at hospital radiological departments, and the technical sections are especially aimed at those who work closely with radiographic techniques. These sections notwithstanding, the book is eminently readable, and there are many thought-provoking sections for all those connected with hospital practice and ionising radiation generally. Parts to be singled out include those on unnecessary radiological examinations and the avoidance of repeat radiographs. There is also a most useful section on dental radiography.

In general this is a useful and much

needed publication presented in a concise, easily digestible form. It should attract a wide interest though it might have been expanded with good effect to discuss such difficult topics as routine radiological examinations.

P RATCLIFFE

The Prevention of Occupational Cancer. An ASTMS policy document. London: ASTMS, 1979; **The Prevention of Occupational Cancer.** By JK Howard. An ASTMS policy document—a review. London: Chemical Industries Association, 1980; **Chemicals, Work and Cancer.** By A Le Serve, C Vose, C Wigley, D Bennet. Walton-on-Thames: WEA and Nelson, 1980; **Cancer in Modern Mortality.** By N E J Wells. London: Chemical Industries Association, 1980.

Much attention has been given lately to discovering the extent to which occupation contributes to the aetiology of cancer. This quest has led to heated arguments and the debate received a major boost when a document was circularised, but never officially published, suggesting that between 20% and 40% of all cancers in the United States were due to occupational exposure.¹ Although the authors represented the National Cancer Institute, the National Institute of Environmental Health Sciences, and the National Institute of Occupational Health, apparently all but one have now disowned their contribution (Howard). The document has been roundly attacked in most scientific circles but has been extensively used by ASTMS in its policy document, which suggests that industry is the major cause of modern cancer.

The furore caused by such a publication and the appearance of a book by Epstein on the *Politics of Cancer* has stimulated the Chemical Industries Association to publish two rejoinders (Howard, Wells). Even the founding director of the International Agency against Cancer has felt the need to clarify his position on "self-inflicted" and "imposed" carcinogens.²