

ICEDIVE 84

ARCTIC UNDERWATER OPERATIONS; MEDICAL AND OPERATIONAL ASPECTS OF DIVING ACTIVITIES IN ARCTIC CONDITIONS. Rey, L. (editor). 1985. London, Graham and Trotman. 355 p, illustrated, hard cover. ISBN 0 860 10 6314. £40.00.

Arctic Underwater Operations is about technology. It is not, as in many such publications, a symposium proceedings with a large number of scientific papers discussing recent research. Even less is it a text which sits on the bookshelf and occasionally provides the answer to obscure scientific questions. It is a book to be browsed or to be read from cover to cover; it is a book of value to the expert diver, but one which will also hold the interest of the less well-informed. Moreover, since 'Icedive 84' took place only months ago, the editor (Prof Louis Rey) and publishers have achieved a remarkable feat in producing a timely symposium proceedings. In a field where technology advances so rapidly, this has ensured that *Arctic Underwater Operations* will remain up-to-date for several years. The book is in three sections: Part I, dealing with the medical and physical problems associated with diving, and especially with diving in cold water; Part II, which considers the operational management side; and Part III, which discusses operational aspects of the actual diving process. Each part is then divided into a number of chapters written by authors and based on papers read at 'Icedive 84'.

I enjoyed reading Part I most, probably because I learned so much from it. Of special mention are a series of papers which discuss slowing of heartbeat (bradycardia) due to diving. Does it really occur or were early conclusions drawn from involuntary submersion of ducks incorrect? Chapter by Kanwisher and Gabrielsen I found excellent, especially in its discussion of this problem, and in its explanation of aerobic and anaerobic energy pathways in relation to differences between man and the cetaceans. My only real caveat in reading Part I was a series of 'Plague Dog' live-animal experiments which, although probably extremely informative and valuable, should carry PG certificates. In dealing with managerial aspects of diving, including the complex issue of equipment assessment, Part II was of least interest to me personally. However, this section was also the most specialised, so that I am not the best judge of its value. I did find myself becoming slightly annoyed with authors who were out to sell a product rather than inform an audience. The chapter by Sveinsson on the history of diving in Iceland makes good reading, as do papers on avoidance of hypothermia, equipment design and performance under cold conditions, etc. There is much to be had for the experts in Part II. 'Hands-on-experience' is what Part III is all about. In this section we find papers discussing hydrocarbon engineering work in the Arctic, sea ice characteristics and behaviour, remotely operated underwater vehicles, the operation of mini- and full size submarines in Arctic waters, and finally, a paper which describes various submarine freighter designs for Arctic transportation.

Arctic Underwater Operations is strongly recommended to expert and novice alike, and I conclude by emphasizing the diversity of the book by a quotation from chapter 8; 'When one is chased by an alligator the first 100 m are the most dangerous'. (Vernon A. Squire, Scott Polar Research Institute, Lensfield Road, Cambridge CB2 1ER.)

CANADIAN ARCTIC WHALING

AN ARCTIC WHALING DIARY: THE JOURNAL OF CAPTAIN GEORGE COMER IN HUDSON BAY 1903-1905. Ross, W. Gillies (editor). 1984. Toronto, University of Toronto Press. 271 p, illustrated, hard cover. ISBN 0-8020-5618-0. £25.00, Can\$35.00.