

SEA ICE IN THE SOVIET ARCTIC

DYNAMICS OF ICE COVER. Timokhov, L. A. (editor). 1984. Rotterdam, Balkema. (Russian translations series 25.) 219 p, illustrated, hard cover. ISBN 90 6191 441 8. £17.65, US\$26.00

I am always rather saddened when I read a translation of Russian scientific research for the first time. Primarily this is due to its inevitable late arrival in the West, but also to the apparent lack of dialogue between Soviet scientists and their counterparts in the United States, Canada and Europe. 'Dynamics of Ice Cover', edited by L A Timokhov, is no exception and reports work first published in 1974 just before the main AIDJEX (Arctic Ice Dynamics Joint Experiment) began in the Arctic Basin. There is no doubt that AIDJEX would have profited immensely from the theoretical and experimental studies reported in this book; there is no doubt that many of the contributors in 'Dynamics of Ice Cover' would have found data collected during AIDJEX pilot studies in 1970, 1971 and 1972 of great value. Without scientific discourse West and East appear to have gone their separate ways, and in many cases have re-invented the wheel.

'Dynamics of Ice Cover' is a translation of a series of scientific papers on the morphology and dynamics of sea ice in the Russian Arctic. Papers dealing with oceanographic and meteorological factors which influence or control sea ice behaviour and distribution are also included. The translation is excellent, and the General Editor Dr Kothekar and two translators, Drs Guha and Kathavate, are to be congratulated on producing such a readable text. All the accepted sea ice terminology and jargon are there (and correctly applied in all but a few cases) yet the papers retain the clarity that one supposes was present in their original language. Furthermore the book is not turgid. One criticism, which presumably faults the original authors rather than the translators, is that in many papers undefined symbols often occur leaving the reader to interpret complex equations with little or no help from the text.

The text offers a fine, though dated, introduction to Arctic geophysics for a graduate level student in one of the physical sciences. The standard of published material is good throughout, but certain authors deserve special mention; papers by Bogorodskii, Borodachev, Doronin, Gavrilo, Gorbunov and Savchenko are of the highest standard. Very few authors cite similar work done outside the Soviet Union, yet the material draws many parallels with issues studied by US scientists of that decade. It is fascinating to see the development of ideas converging to like conclusions despite lack of interaction.

I thoroughly recommend 'Dynamics of Ice Cover' to all scientists studying sea ice, especially in view of its relatively low price. (Vernon A. Squire, Scott Polar Research Institute, Lensfield Road, Cambridge CB2 1ER.)

CONFERENCE ON PERMAFROST

PERMAFROST: FOURTH INTERNATIONAL CONFERENCE PROCEEDINGS. University of Alaska and National Academy of Sciences (chairman of organising committee T. L. Péwé). 1983. Washington, DC, National Academy Press. 1524 p, illustrated, hard cover. ISBN 0-309-03435-3. US\$65 in US, \$78.25 export.

Permafrost, or perennially frozen ground, underlies 20% of the land surface of the earth. It affects many human activities, especially in the field of engineering, and thus an understanding of its distribution, characteristics and behaviour is important. To judge from the wealth of information contained in this 1524 page volume, permafrost research is alive and kicking. The book brings together 276 of the papers presented at the fourth