

## NOTES AND REVIEWS

## THE GLACIER PHYSICS COMMITTEE

[MS. received on 17 March 1947.]

Glaciology has now reached a stage when mere observation in the field is no longer an adequate method of attack for the problems which are still unsolved. Experimental research on the fundamental physical and mechanical properties of ice is required before a quantitative theory of glacier flow, based upon modern concepts of plasticity in crystalline solids, can be formulated. For testing such theories in the field, novel methods of research will be needed for measuring flow rates and stresses in the interior of glaciers at considerable depths.

The development of research on lines such as these will need the co-operation of experts in several fields. With this purpose in view a Glacier Physics Committee has been formed at Cambridge University, in close association with the British Glaciological Society and the Royal Geographical Society. The following gentlemen have agreed to serve on it:

Dr F. P. Bowden (Friction of solids).

Dr E. C. Bullard, F.R.S. (Geophysics).

Mr W. V. Lewis (Geomorphology).

Professor A. Austin Miller (Geology, Geography), representing the Royal Geographical Society.

Dr E. Orowan, F.R.S. (Plasticity).

Dr M. F. Perutz (Crystallography), Honorary Secretary.

Mr G. Seligman, President of the British Glaciological Society.

Sir Geoffrey Taylor, F.R.S. (Applied Mechanics).

Mr J. M. Wordie (Polar exploration, Glaciology).

At its first meetings the Committee has made the following recommendations:

(1) A programme of laboratory research on the plasticity of ice should be started at the Cavendish Laboratory, Cambridge, under the direction of Dr E. Orowan and Dr M. F. Perutz.

(2) A party should go out to Switzerland in the summer of 1948 in order to test the "Extrusion Theory" of glacier flow. Seismic soundings of glacier depth should be made and methods developed for determining the velocity of glacier flow at great depth. The preparatory work should be done at the Department of Geodesy and Geophysics, Cambridge, and the research should be under the direction of Dr E. C. Bullard.

(3) Representations should be made to the appropriate authorities that a glaciologist be appointed to work in Graham Land within the framework of the Falkland Islands Dependencies Survey.

It is to be hoped that the Committee's activities will give a new impetus to glacier research and that much valuable information will result from the research which is being initiated.

M. F. PERUTZ