

TEN YEARS OF INTERNATIONAL CO-OPERATION IN THE ANTARCTIC

The past ten years have seen an unparalleled surge of activity in the opening up of the Antarctic to man's knowledge. Prior to 1956, only one person had spent a winter even a few miles from the coast, now scientists and technologists regularly overwinter in properly equipped stations many hundreds of miles inland. A network of coastal and inland stations has been collecting systematic data, much of it on a synoptic basis, continuously for the past ten years. Traverse parties have travelled some tens of thousands of miles over all the major inland regions carrying out studies of snow, ice, rocks and associated features, and of the continent under the ice. Aircraft have achieved systematic photogrammetrical coverage of ice-free areas over a large portion of the continent as well as supplying inland stations and traverse parties.

Much of the detailed record of these activities has appeared in the *Polar Record*, but from time to time it is worth pausing to take stock of the achievements of a period. The twelve national committees actively associated with the Scientific Committee on Antarctic Research of the International Council of Scientific Unions have recently held functions to mark the completion of ten years of effective international co-operation in the Antarctic. This period, which could be called the technological era of Antarctic exploration, began with the establishment of stations for the International Geophysical Year. Historically, it must rank with the two other notable periods of expansion of Antarctic knowledge—the coastal exploration period of 1819 to 1843, and the “heroic” era of the first inland journeys and wintering stations, 1898 to 1916. The interest of governments in the potentialities of scientific and general co-operation in the Antarctic, awakened during the decade, culminated in the Antarctic Treaty of 1959. This unique agreement, in addition to its achievement in setting aside the difficult problems of territorial claims for the present, has provided a firm basis for long-term scientific planning in the Antarctic. Practical experience over the past ten years has shown that problems of world-wide concern to the scientific community can in fact be solved if scientists can agree on the way to solve them and enough individual scientists are prepared to exert themselves to achieve their objectives in their own countries. Governments have observed that broadly based programmes do provide a pragmatic basis on which nations of widely differing political persuasions can in practice co-operate. One must, in fact, accept the situation that the recent notable expansion of geographical knowledge of Antarctica has been due, not primarily to the efforts of persistent explorers but to the realization that it is now practical to include Antarctica in the planning of a world-wide scientific survey. It appears likely, indeed, that for many years the main requirement from Antarctic expeditions will be the provision of data for scientific programmes planned on a world-wide basis as the International Biological Programme, the International Hydrological

Decade, the Upper Mantle Project, the World Magnetic Survey and the recently completed International Years of the Quiet Sun.

As these long-term requirements become recognized it becomes possible to plan operations more logically. Provision of adequate laboratory, technical and living facilities can be made more satisfactorily if they are to be used for twenty years rather than for two. Properly equipped oceanographical research vessels become acceptable requirements rather than short-term luxuries. Logistic facilities capable of enabling senior scientists to visit Antarctic stations for a few weeks only to guide the work of younger colleagues pay handsome dividends. Frequent contacts between scientists of different expeditions for exchange of information on work and plans are clearly of general benefit.

There appears every reason to hope that the enterprise and spirit of co-operation which became apparent during the International Geophysical Year, and which has been so encouraged by the Antarctic Treaty, will continue in the Antarctic. And although the political and strategic background of the Arctic is undeniably different, further development of co-operation between scholars and scientists interested in Arctic problems may yield similar benefits.

G. DE Q. ROBIN