## **Foreword**

The Third Symposium on Polar Meteorology and Glaciology was held on January 13–14, 1981 at the National Institute of Polar Research. The symposium reported on continuing efforts of polar meteorologists, glaciologists and oceanographers, in particular, the outcome of the Japanese polar sub-programme in conjunction with the Global Atmospheric Research Programme (GARP). The Japanese polar sub-programme consists of three components: Polar Experiment in the Arctic (POLEX-North); POLEX-South observations in the Antarctic by the Japanese Antarctic Research Expedition (JARE); and numerical experiments at home laboratories.

The POLEX-North observations were successfully completed at Inuvik, Canada in the winter of 1979–1980. This was one reason for convening this symposium. This volume does not necessarily include all the results of POLEX-North, but a summary and pertinent papers are included. POLEX-South observations were planned from 1979 to 1981; the results of the first year by JARE-20 were presented at the symposium. In parallel with these field observations, analyses of data hitherto collected and theoretical studies were carried out. This volume contains 29 papers, among which 12 papers deal with POLEX oriented problems. The rest cover a wide variety of problems on cloud physics, synoptic meteorology, ice cores, and ice sheet surface phenomena.

The Japanese POLEX-South programme is still in progress, so more results will be presented at the next symposium. This volume is the initial harvest of the collaboration of meteorologists, glaciologists and oceanographers, and will undoubtedly contribute to the furtherance of research on the polar atmosphere, cryosphere and hydrosphere. My sincere thanks are due to those who contributed the papers.

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