

Foreword

This volume is the Proceedings of “the Ninth Symposium on Coordinated Observations of the Ionosphere and the Magnetosphere in the Polar Regions” which was held at the National Institute of Polar Research (NIPR) from February 17th to 19th, 1986. The NIPR annual symposia are devoted to discussing significant scientific results of studies on the ionosphere and the magnetosphere in the polar regions. The ninth symposium consisted of the following ten sessions: 1) Ionospheric and magnetospheric disturbances in the polar regions, 2) Auroral dynamics, 3) Sounding rocket observations, 4) Satellite observations, 5) Sounding balloon observations, 6) Geomagnetic disturbances associated with storm sudden commencement and substorms, 7) Geomagnetically conjugate observations, 8) Middle Atmosphere Program (MAP) in Antarctica, 9) ELF, VLF and HF wave phenomena, and 10) Solar wind-magnetosphere-ionosphere interactions.

The present volume contains 22 selected scientific papers among 83 individual contributions presented at the symposium. These papers may be classified into the following four groups, *i.e.*, 1) Observational results of sounding rockets and balloons performed at high latitudes, 2) Results of the MAP, 3) Conjugate phenomena at Syowa Station and Iceland, 4) ULF-VLF waves in the polar and the lower latitude regions as well as their propagation and generation mechanisms.

It is hoped that this special issue of *Memoirs of National Institute of Polar Research* will be valuable to those who are interested in the ionospheric and magnetospheric phenomena in the polar regions and also to those who are concerned with Antarctic research activities.

January 1987

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