Foreword

This volume is the Proceedings of "the Seventh Symposium on Coordinate Observations of the Ionosphere and the Magnetosphere in the Polar Regions" which was held at the National Institute of Polar Research (NIPR) from February 27th through 29th, 1984. The NIPR annual symposia are devoted entirely to discussing significant scientific results of studies on the ionosphere and the magnetosphere in the polar regions. The seventh symposium consisted of the following eight sessions: I) Pc 3 magnetic pulsations and their related phenomena (special session in this symposium), II) Ionosphere and magnetosphere disturbances in the polar regions, III) ELF, VLF and HF wave phenomena, IV) Auroral phenomena, V) ULF wave and SSC phenomena, VI) Middle Atmosphere Project (MAP) in Antarctica, VII) Theoretical and simulation studies of polar disturbances, and VIII) Practical future plans.

The present volume contains 33 selected contributions among 80 individual scientific papers which were presented to the symposium. These 33 papers may be classified into the following seven groups; *i.e.*, I) Pc 3–5 magnetic pulsations and their related phenomena, II) Stormtime sudden commencement (SSC) phenomena observed onboard satellite and on the ground, III) VLF and HF waves in the polar regions, IV) Pulsating aurora and electric field fluctuations, V) Aurora and auroral particle, VI) Theoretical and simulation studies applied for magnetic pulsations, current system in the ionosphere and magnetosphere, and drift motion of auroral particles.

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.

May 1985

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Editors