

Foreword

The first meeting of the Committee on Antarctic Research of the International Association of Geomagnetism and Aeronomy (IAGA) was held on the 13th September, 1973 on the occasion of the Second General Scientific Assembly of IAGA in Kyoto. This meeting consisted of two scientific review sessions and two business meetings.

In the first review session, recent progresses in studies on Austral auroras were reviewed and discussed in fair detail; the main subjects were the geomagnetically conjugate relationship between aurora Australis and aurora Borealis and auroral H_{β} , UV and X-ray emissions observed in Antarctica. In the second review session, VLF and ULF phenomena were the main topics; recent progresses in studies on the mechanism of polar VLF and ULF emissions were reviewed particularly on the basis of Antarctic data, and the conjugacy of VLF and ULF was discussed, together with theoretical considerations of its mechanism, on the basis of the recent detailed observations in both polar regions.

The main task of the IAGA Committee on Antarctic Research is to prepare the best possible scientific programing for the researches of upper atmosphere physics in Antarctica in conjunction with the other observing programs outside the particular continent. In this regard, the IAGA Committee has to maintain its close cooperation with the Scientific Committee on Antarctic Research (SCAR) as well as with other IAGA groups or committees who generally deal with the global problems of terrestrial upper atmosphere and magnetosphere. The Kyoto meeting of the IAGA Committee was supported by both IAGA and SCAR through the official approval in advance by the two international bodies. In the business meetings, therefore, the best possible scientific research programs for Antarctic upper atmosphere physics, especially in connection with the proposed International Magnetospheric Study (IMS), were discussed. At the end of this volume, scientific recommendations adopted by the Kyoto meeting are summarized as an appendix of the Proceedings.

Since the review papers presented at the Kyoto meeting cover various modern aspects of the upper atmosphere physics in Antarctica, the publication of the proceedings of this meeting in one volume should be extremely useful for the scientists researching in polar upper atmosphere physics. Upon the request from the authors of the review papers and with the agreements of IAGA and SCAR, the Proceedings are being published as a special issue of the *Memoirs of National Institute of Polar Research, Japan*. On behalf of the Institute, I would like to express my great pleasure for being able to financially support the publication of the Proceedings as a practical close cooperation with IAGA and SCAR.

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