

P R E F A C E

The first General Assembly of the International Astronomical Union was held in the year 1922. At three or four year intervals up to 1938 and from 1948 to 1979 the General Assemblies have been held regularly in a total of thirteen different countries.

The purpose of the General Assemblies is three-fold. Firstly they are designed to provide the opportunity for the exchange by personal contact of recently-obtained scientific results. This exchange of information can take place at the series of IAU Symposia and Colloquia held in the host country or in neighbouring countries before and after the General Assembly, at scientific Commission Meetings and at Joint Discussions of several Commissions at the Assembly itself, or during informal discussions during, for instance, the events of the social programme. Secondly, many astronomers meet during the time of a General Assembly to formulate agreed opinions on matters of world-wide interest within the specialisations of the Union's Commissions and other Committees. Thirdly, strong personal links of friendship over every kind of terrestrial division - geographical, cultural and political - are regularly formed at General Assemblies of the IAU.

These tasks are difficult if the results are to endure; they have to be approached in a spirit of service to the world astronomical community. Even if the achievements are not perfect, the activities of General Assemblies foster among the rising generation of astronomers an experience of kinship with colleagues the world over, and contributions are made towards a global appreciation of the science of astronomy.

The *IAU Transactions* that record the work of the 1979 Montreal General Assembly have been published first in the form *Reports on Astronomy 1979 (IAU Transactions vol. XVIIIA, D. Reidel Publishing Co., 1979, in 3 parts)* which was already available at the General Assembly as an index and summary of work done between 1976 and 1978 within the area of each Commission, and second in the form of these *Proceedings* which form a permanent record of the business of the General Assembly and of each Commission or other organ of the Union. The Joint Discussions of Commissions, which form an important part of the scientific sessions of the IAU General Assembly, are separately reported in *Highlights of Astronomy*. Volume 5 of this series, for the Montreal General Assembly is being published by D. Reidel Publishing Company during 1980. This volume also contains texts of the Invited Discourses and some papers from Joint Commission meetings. The open meetings at Montreal on the Search for Extra-Terrestrial Intelligence are being separately published by D. Reidel Publishing Company.

The business of the General Assembly itself, the highest authority of the Union, is guided by the Executive Committee and the Report of the Executive Committee for the years 1976 to 1978 was made available to the General Assembly in the pages of the IAU Information Bulletin No. 42 for June 1979. The Report also appears as an appendix to the present volume. It includes information on the finances of the Union and a proposed Budget for the forthcoming triennium 1980-1982.

The section of this volume labelled Part 2 contains the actual proceedings of the General Assembly formal sessions at Montreal, including reports of the Finance Committee, the Resolutions Committee, and the Special Nominating Committee. The last-named Committee of the Union proposes, by procedures that are largely independent of the existing Executive Committee, names for the future Officers and Members of the Executive Committee. The Nominating Committee appointed by the national Adhering Organisations, as well as forwarding the individual IAU members' names as proposals to the General Assembly for new membership, joins with the Presidents of the forty

or so Commissions in determining the composition of the Special Nominating Committee. The procedure is described in the By-laws of the Union; these By-laws, together with an up-to-date version of the IAU Statutes, the Working Rules, and the Rules for Scientific Meetings are printed in this volume.

The last half of this volume is dominated by the list of approximately 4500 names and addresses of the individual IAU members. The IAU appears to be unique among the scientific Unions in maintaining this category of individual membership. This feature adds considerably to the administrative load of the Union but it also contributes in an important way to the continuation of a spirit of individual responsibility and enterprise as well as a feeling of personal commitment to the aims of the Union.

The production of this volume would not have been possible without the careful work by the many Commission Presidents who provided camera-ready manuscripts and the equally careful contributions of Mme Brigitte Manning and Ms Patricia Smiley in the work of assembling the manuscript for publication.

Patrick A. Wayman
General Secretary