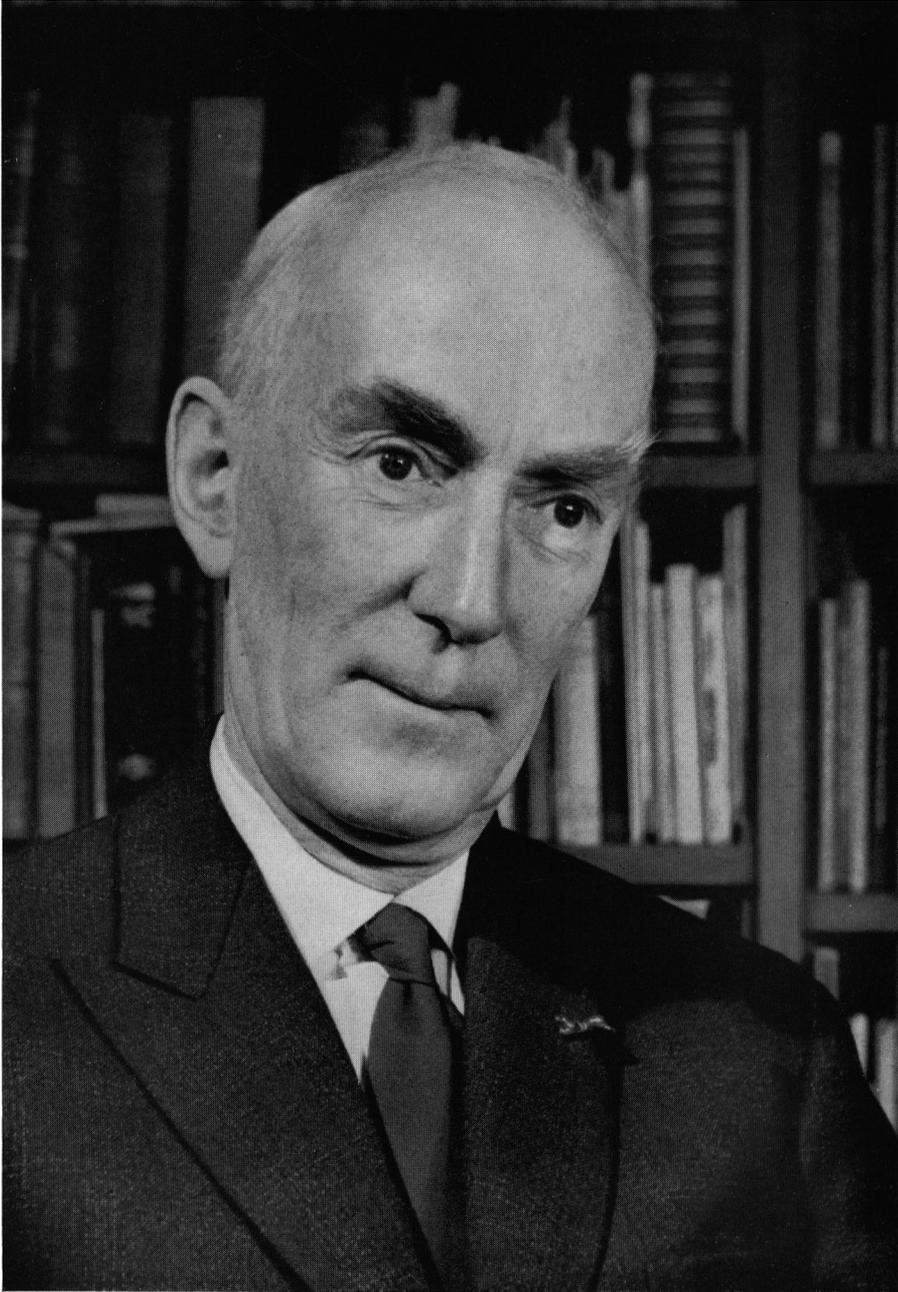


TRANSACTIONS
OF THE
INTERNATIONAL
ASTRONOMICAL UNION
VOLUME XIB – PROCEEDINGS



JAN HENDRIK OORT
Director of the University Observatory, Leiden
PRESIDENT 1958 - 1961

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS
INTERNATIONAL ASTRONOMICAL UNION
(UNION ASTRONOMIQUE INTERNATIONALE)

TRANSACTIONS
OF THE
INTERNATIONAL ASTRONOMICAL UNION
VOL. XIB-PROCEEDINGS

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INTRODUCTORY NOTE

The following list of contents has been expanded to facilitate reference both to the principal administrative reports and decisions and to the reports of the major scientific discussions. Parts 1, 2 and 6 are primarily of administrative interest, while parts 3 and 5 consist entirely of scientific reports; part 4 (Reports of Commission meetings) contains material of both administrative and scientific interest. There is no index.

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PREFACE

The increasing size of the complete volume of the *Transactions* of the Union has made it necessary to divide the present volume (the eleventh to be published) into two parts, bound and published separately. In order to preserve the relationship with the corresponding General Assembly, both parts carry the same volume number together with a distinguishing letter A or B.

The present part, volume XI B, has been given the title *Proceedings of the Eleventh General Assembly*. It contains a complete record of both the administrative and scientific proceedings of the eleventh General Assembly of the Union, held in Berkeley, California, from 15 to 24 August 1961.

Volume XI A, with the title *Reports on Astronomy*, has been published before the present volume; it contains the Draft Reports of Commissions as presented to the eleventh General Assembly, and as subsequently amended. It stands, in its own right, as an authoritative, detailed and unique record of the present state of Astronomy in all its branches. However, the Reports of Commissions 3, 5, 6 and 38, which are almost entirely of an administrative character, have been included in the present volume XI B, as appendices to the Report of the Executive Committee.

No Symposia were held during the eleventh General Assembly; but two Symposia, No. 15 (Problems of Extra-Galactic Research) and No. 17 (Visual Double Stars), were held immediately before and one, No. 16 (The Solar Corona), was held shortly after the General Assembly. The proceedings are being published as follows:

- No. 15 *Problems of Extra-Galactic Research*—as a separate volume (*Symp. IAU 15*) by The MacMillan Company.
- No. 16 *The Solar Corona*—as a separate volume (*Symp. IAU 16*) by Academic Press Inc.
- No. 17 *Visual Double Stars*—in *Publications of the Astronomical Society of the Pacific*; reprints will be available for sale as *Symp. IAU 17*.

The texts of the three Invited Discourses (in part 3), and the reports of the four Joint Discussions (in part 5), arranged during the General Assembly, are included in this volume. There is also included, in part 5, the report of the first meeting of the Inter-Union Commission on Solar and Terrestrial Relationships, which was held on the day before the General Assembly.

There is a considerable divergence of practice in the reports of the meetings of Commissions, which form part 4. For almost all Commissions there is a report, usually brief, of the “administrative” discussions concerning the internal organization of the Commission and the arrangement of programmes of observation and international co-operation. In addition, the Presidents of some Commissions arranged formal scientific meetings, which are reported at some length together with summaries of the papers that were presented; others were satisfied to report briefly the subjects of the discussion and the names of the principal speakers. This divergence merely reflects the widely varying characters of the Commissions.

There were in all well over a hundred separate formal meetings during the General Assembly; it is a considerable tribute to the diligence and efficiency of the secretaries of the Commissions that reports are included in this volume of all such meetings. To these secretaries, and to many others, I am greatly indebted.

PREFACE

The list of contents that follows this *Preface* has been expanded to provide a ready means of reference, not only to the principal administrative reports and decisions, but also to the reports of the major scientific meetings organized by the Commissions. There is no index.

The preparation of much of this volume, particularly parts 1, 2 and 6, would have been impossible without the devoted work of the Assistant Secretary, Miss Nel Splinter, who has combined a capacity for faithful reporting with a remarkable care and skill in ensuring that her intentions are accurately translated into print. I am deeply grateful to her. I also thank the members of the staff of H.M. Nautical Almanac Office, particularly Mr W. Nicholson and Mr H. W. P. Richards, who have given valuable assistance in proof reading.

Our new printers, Messrs. Willmer Brothers and Haram Limited, have again shown their craftsmanship and efficiency in producing a unified volume from copy that necessarily varied greatly in style and quality.

D. H. SADLER
General Secretary

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1 July 1962