

## COMMISSION 10: SOLAR ACTIVITY (ACTIVITÉ SOLAIRE)

### Reports of Meetings

PRESIDENT: J. T. Jefferies.

#### Scientific Sessions

Three scientific sessions were held by Commission 10 during the IAU XV General Assembly. On 24 August, a session jointly with Commissions 12, 40 and 44 heard four reviews on 'Recent Advances in Solar Astronomy'. The topics of space observations, radio observations, groundbased optical, and a summary of future work were covered by L. W. Acton, D. J. McLean, A. Bruzek and G. Newkirk, respectively.

On 27 August, a joint session with Commissions 12, 29, and 36 considered 'Observational and Theoretical Objectives for the Next Decade in Solar and Stellar Atmospheres'. Stellar observations and theory were reviewed by L. Kuhi and P. Delache while J. M. Beckers and M. Kuperus (in a paper presented by J. Rosenberg) reviewed the observational and theoretical objectives of solar research.

Commission 10 organized a well-attended open session on 28 August at which Leo Goldberg presented exciting early results from the solar experiments on the SKYLAB manned space observatory.

#### Administrative Session

On 21 August, the Commission membership elected the officers and new Organizing Committee members proposed by the 1973 Organizing Committee. Their names are given below:

President: K. O. Kiepenheuer.

Vice President: G. A. Newkirk.

Members: L. W. Acton, V. Bumba, L. D. de Feiter, V. A. Krat, F. Moriyama, Paul Simon, J. T. Jefferies (Past President).

At the generous invitation of V. Bumba, it was decided to hold a Symposium on Solar and Stellar Activity in Prague, Czechoslovakia in August, 1975. The Organizing Committee of Commission 10 is to appoint a program committee charged to formulate a program sharply focused on the basic problems in solar activity.

The Working Group on Flare Sprays was reformed into a three-man Working Group on major prominence events, whose members are E. Tandberg-Hanssen, J. Parkinson and R. Stewart. This group is to evaluate the need for such a study, formulate the scientific objectives, and recommend the course of action. They are to report by mail to the membership of Commission 10, through its President, within one year.

The Commission requested the incoming Organizing Committee to establish a small group to recommend a standard nomenclature for solar features and to prepare an illustrated text.

It was resolved that the Organizing Committee should appoint a Working Group to consider the desirability of, and to formulate the scientific objectives of an 'International Study of the Active Sun' to cover the period of the next solar maximum. The Working Group is to define requirements for the success of such a study and is to report conclusions to the Commission 10 membership within one year.

Because of inadequate information available to the meeting, at the time, Commission 10 did not feel that action could be taken toward approval of a resolution put forward by the Committee of European Solar Radio Astronomers (CESRA) urging implementation of a Joint Interferometer Project.

The meeting heard reports from the Working Groups as outlines below.

### Reports of Working Groups

#### STANDARDIZATION OF MAGNETIC FIELD MEASUREMENTS

Beckers presented the report of the Working Group on Standardization of Magnetic Field Measurements; the results are to be published in *Solar Physics*. The report of this Working Group was accepted with thanks. Disbandment of the Group was approved.

#### SOLAR ACTIVITY COOPERATIVE PROGRAMS (FORMER SUBCOMMISSION 10A)

##### *International Survey Programs*

P. Simon reported that he had received 25 replies from the questionnaire which had been distributed concerning the special problems of solar flare reporting. These problems covered patrol sites, apparatus, reports and final evaluation, a flare index, and high-resolutions data. Each of these was discussed in turn. It was decided to organize certain small groups to continue the study of the problems related to the Flare Index, Patrol Sites and Apparatus, and the Comparison and Reporting of Simultaneous Data.

##### *MONSEE Program*

H. Tanaka presented a brief report on MONSEE (Monitoring the Sun-Earth Environment), an inter-union group formed under the auspices of the Special Committee on Solar Terrestrial Physics (SCOSTEP) for the purpose of promoting activities in solar-terrestrial physics monitoring data exchange and associated matters. Tanaka also discussed improvements in the publication of solar ratio data in the QBSA for which he has accepted responsibility. His report was received with appreciation and approval.

##### *Corona Monitoring*

J. Rösch reported satisfactory normalization among the three observatories still doing routine coronal intensity monitoring in the green and red lines of Fe XIV and Fe X.

##### *Sunspot Monitoring*

M. Waldmeier reported on continuing activities in sunspot monitoring (about 30 observatories participated), and on the new format for QBSA.

#### Resolutions

The following resolutions were adopted for transmission to the Executive Council of the Union:

#### SPECIAL PROGRAMS DURING THE YEARS OF SOLAR MAXIMUM

The International Astronomical Union  
*noting* that the next maximum in solar activity is expected to occur in 1979,  
*urges* governmental and scientific agencies to implement special programs during the years of solar maximum to provide the data from space and ground which are necessary for studies of the active Sun.

#### ABSOLUTE CALIBRATION OF SOLAR RADIO FLUX MEASUREMENTS

The International Astronomical Union  
*considering*

(a) that URSI Commission V noticed in 1966 important disagreements among absolute calibrations of microwave solar radio flux made at different stations;

(b) that most of the important disagreements were successfully removed before its General Assembly in 1972, and that the technique of making absolute calibrations has been established;

(c) that regular world-wide observations with an accuracy of a few parts in 100 are practicable only through a continuing international coordination;

(d) that IAU Commission 10 has long desired improvement of homogeneity in the field of solar activity survey;

*expresses* thanks to URSI Commission V for its successful work on radio flux calibrations; and *decides* that Commission 10 takes over the responsibility for the continuation and future applications of the work done by URSI Commission V.

INTERGOVERNMENTAL ORGANIZATION FOR AN INTERNATIONAL  
SOLAR OBSERVATORY

The International Astronomical Union

*being aware* of the explorations made by astronomers from a number of IAU member countries during the last five years to find an excellent site for solar observations;

*having been informed* of the interim results during which some 40 prospective sites have been investigated, which have led to the identification of three very promising prospective sites that will be subjected to final testing with medium-sized solar telescopes during the years 1973 and 1974;

*realizing* the far-reaching scientific importance of solar observations that would be performed from a site with really excellent seeing;

*realizing* further that a truly international solar observatory can be established only as an inter-governmental organization;

*urges* the governments of the relevant member countries to examine the possibility of establishing such an organization, if the final exploration of the sites shows at least one of them to have excellent daytime seeing;

*draws* attention to the importance of such an observatory being accessible to visitors, not only from the member states but also from other countries; and

*asks* that measures to that end be examined when establishing the final structure of the Joint Organization for Solar Observations as an intergovernmental organization.