

## COMMISSIONS OF THE EXECUTIVE COMMITTEE

**Commission 5: Documentation & Astronomical Data**

**Commission 6: Astronomical Telegrams**

**Commission 14: Atomic & Molecular Data**

**Commission 38: Exchange of Astronomers**

**Commission 46: Teaching of Astronomy**

**Commission 50: Protection of Existing & Potential Observatory Sites**

## COMMISSION 5: DOCUMENTATION AND ASTRONOMICAL DATA

*(DOCUMENTATION ET DONNEES ASTRONOMIQUES)*

**PRESIDENT:** Olga Dluzhnevskaya

**VICE-PRESIDENT:** Françoise Genova

**ORGANIZING COMMITTEE:** M.S. Bessel, H.R. Dickel, B. Hauck, H. Jenkner, O. Malkov, F. Murtagh, K. Nakajima, R.P. Norris, F. Ochsenbein, G.R. Riegler, D.C. Wells III, R. Wielen, Zhao Y.H.

### 1. Business meeting (August 15th, 2000)

#### 1.1. President Report for 1997-2000

The Commission activity report for 1997-1999, prepared by the President, Vice-President and Chairs of the Working and Task Groups, was distributed by email to all the Commission members. It is published in IAU Transactions Vol. XXIVA.

In addition to the scientific and organizing activities described in this report, the following recent highlights have to be mentioned:

- The three-day Special Section 11 on “Astronomical Data acquisition, processing and storage: modern facilities” which took place in the frame of the Joint European Astronomical Society and National Astronomical Meeting for 2000 in Moscow, Russia, on May 29-31 (Co-chairs: O. Dluzhnevskaya and F. Pasion, SOC members: H. Andernach, F. Genova, O. Malkov, E. Raimond, W. Wamsteker). Six sessions were held, with 6 invited talks, 28 oral talks and 18 poster presentations. The Proceedings will be published in *Baltic Astronomy* by the end of 2000 or at the beginning of 2001.
- Preparation of the Multi-commission Meeting on Designation of stellar companions, sponsored by Commissions 5 and 26, which was held on August 11th, 2000 after an extensive and careful preparation by H.R. Dickel and her group.
- Preparation of the Joint Meeting “Astronomical Data in the Next Decade”, organised by R.P. Norris and F. Genova for the Working Group on Astronomical Data and Task Group on Data Centers and Networks, and held on August 12th, 2000.

Information about Commission 5 activities is regularly updated on the Commission web site at <http://ulda.inasan.rssi.ru/IAU/>.

O. Dluzhnevskaya thanks all the colleagues, especially the SOC members, who have helped her during this term as President of Commission 5.

#### 1.2. Structure of Commission Working Groups and Task Groups

A new structure is proposed for Commission 5 Working Groups:

- Working Group Astronomical Data, Chair R.P. Norris
- Working Group Libraries, Co-Chairs U. Grothkopf, F. Murtagh
- Working Group Designations (previously Task Group Designations), Chair H.R. Dickel, Vice-Chair M. Schmitz

- Working Group FITS, Chair D.C. Wells
- Working Group Virtual Observatories, Data Centers and Networks (previously Task Group Data Centers and Networks), Chair F. Genova

Task Group UDC 52 will be disbanded.

Additional information: Following the adoption of Resolution B3 by the General Assembly, the SOC approved in November 2000 the constitution of a Task Group on Preservation and Digitization of Photographic Plates (provisional name), headed by E. Griffin under the WGAD. In addition, a Task Group on Information Handling headed by M. Storey will be re-established under the WGAD.

### 1.3. Officers and Organizing Committee

The SOC proposed to the General Assembly is composed of President O. Dluzhnevskaya, Vice-President F. Genova, and members: M.S. Bessel, H.R. Dickel, B. Hauck, H. Jenkner, O. Malkov, F. Murtagh, K. Nakajima, R.P. Norris, F. Ochsenbein, G.R. Riegler, D.C. Wells III, R. Wielen, Zhao Y.H..

The SOC was left by P.B. Boyce because of his retirement and by A.G. Hearn, A. Piskunov and E. Raimond by their resignation. New members: O. Malkov and R.P. Norris.

### 1.4. Commission membership

Contact was taken with all Commission members and consultants to verify their willingness to continue membership. The revised list was checked by the SOC and during the business meeting. New members and consultants will be proposed to the General Assembly. The retired members received warm gratitude and best wishes of the Commission business meeting. The memory of deceased members was honoured.

The Commission welcomes incoming members: C. Cheung, USA; M.C. Maccarone, Italy; B. Corbin, USA; N. Christlieb, Germany; R. Morbidelli, Italy; R.P. Norris, Australia; G. Eichhorn, USA; W. Pence, Italy; E. Greisen, USA; M. Schmitz, USA; M. Storey, Australia. Incoming consultants: D.J. Coletti, USA; D. Kovaleva, Russia.

### 1.5. Resolutions

Commission 5 supports Resolution B3, presented by E. Griffin, concerning Preservation and Digitization of Photographic Plates.

Commission 5 ratifies the C class resolution about Designating Components of Binary/Multiple Star Systems (see 2.1 below).

G. Eichhorn underlines the need to define an official designation for bibliography. He proposes to use the bibcode (19-character description of bibliographic references), presently a 'de facto' exchange standard for links between NASA/ADS, databases such as CDS (SIMBAD and VizieR) and NED, and electronic journals. It is decided to continue the work in progress to handle this 'de facto' standard consistently, and to prepare a resolution to be submitted to the next General Assembly.

### 1.6. 'Preserving the history of astronomy'

The project 'Preserving the history of astronomy' by D.J. Coletti and collaborators is presented (<http://cfa-harvard.edu/library>). The goal is to preserve observatory publications, and individuals and institutions are encouraged to send lacking publications to the project for scanning.

### 1.7. Report of the President: Activity for next triennium

The principal field of science of IAU Commission 5 is astronomical data and their development, and one and maybe the most fundamental goal will be the participation in the creation of Astronomical Virtual Observatory. The discussion of the Commission on August 12th was very useful to determine the principal directions of the VO development, and these topics will be among the main concerns of both WGAD and WGVODCN to protect free and open distribution of data currently used in astronomy.

Another important problem is retrieval of data from observatory archives. The Resolution on Preservation and Digitization of Photographic Plates, proposed by Elisabeth Griffin, will serve for preservation of the observational data for the new generations of astronomers.

The very important work realised by WG on Designations should be pursued. The main effort will be for the Clearing House of the WG to continue reviewing submissions of new acronyms for registration to be included in the interactive 'Dictionary of Nomenclature of Celestial Objects'. The Electronic Forum on Designation of Stellar Companions will continue. The detection of non-conforming designations in preprints and in the literature will also be continued.

The Working Group on Libraries is very active and will continue maintaining the various information resources which are so necessary for all astronomers. The series of Library and Information Services in Astronomy (LISA) conferences organised by this Group is very successful; the next LISA (LISA IV) will take place in 2002.

The FITS Working Group is in the process of final adoption of a definitive version of the FITS standards. The result will be published in an astronomical journal. It will finalize also the World Coordinate Systems agreements.

In addition, it is the honour for Commission 5 that the Chair of Working Group on Astronomical Data will as before be the IAU representative to CODATA (the ICSU Committee on Data for Science and Technology) and will participate in the bi-annual CODATA General Assembly as the IAU's delegate.

Now life can't be imagined without Internet and it seems that the web page of Commission 5 has played an important role during the last triennium in the information of colleagues on the news in activity of the Commission. This activity should be also continued.

## 2. Other meetings

### 2.1. Designation of Stellar Components (August 11th, 2000)

This Multi-Commission Meeting was sponsored by Commissions 5 and 26. Scientific needs about designation of stellar components, and constraints from the coming space missions, were presented. Several possible designation schemes were discussed. Members from 9 supporting Commissions participated and as a result a C type IAU Resolution was drafted and adopted by Commissions 26 and 42, and also later ratified by Commissions 5 and 8+24 at their respective business meetings:

*On designating components of binary/multiple star systems* Recognizing

- a. the increasing synergy of techniques for the investigation of stellar companions blurring the traditional distinction between astrometric, spectroscopic, and photometric binary and multiple stars;
- b. the detection of substellar (including planets) as well as stellar components by these techniques and,
- c. the need for a simple, unambiguous, flexible, and computer friendly designation scheme for components of binary and multiple star systems,

Noting that future ground and space-based telescope projects have the potential to detect both substellar as well as stellar components in increasingly large numbers,

Recommends that

a uniform designation scheme, based on expansion of the new WDS system, be developed

during the next 3 years to include all types of components and that this be reviewed in time for its adoption to be considered at General Assembly XXV.

## 2.2. Astronomical Data in the Next Decade (August 12th, 2000)

This joint meeting of the Working Group on Astronomical Data and of the Task Group on Data Centers and Networks dealt with several topics of importance for the evolution of astronomy information systems:

- WIPO (World Intellectual Property Organization), with a general presentation by R. Norris and a talk about 'The effect of WIPO on Data Centers' (G. Eichhorn). A 'Workshop on the European Directive on Legal protection of databases' will be held at the CODATA meeting in Baveno, Italy, on October 14th, 2000.
- International Virtual Observatory, with a general presentation by F. Genova and several talks on different aspects of the Virtual Observatory implementation (Sharing data on the WWW, M. Schmitz; Data center interoperability, C. Cheung; Beyond FITS, E. Shaya; XML and Interoperability, F. Genova);
- Digitization of Archival data (E. Griffin).

Most of the presentations from the meeting are available from  
<http://www.atnf.csiro.au/~rnormis/WGAD/MeetingIAUGA2000/>

## 2.3. Task Group Designations (August 15th, 2000)

Highlights from the reports presented at the business meeting of the TG Designations at the XXIVth IAU GA include - links to the IAU Recommendations for Nomenclature now exist in the on-line "instructions to authors" of the major astronomical journals and an "object" keyword is included in the latex manuscript forms for several of them. Since its inception 4 years ago, the on-line acronym "Registry" at <http://vizier.u-strasbg.fr/viz-bin/DicForm> has pre-registered about 40 survey acronyms to IAU Commission 5.

New business included the change of the Task Group Designations to a Working Group - WG Designations, with the election of Helene Dickel as President and Marion Schmitz as Vice President for the next 3 years.

A major effort by the TG Designations during the last year and a half, was the facilitation of an electronic discussion among various types of binary/multiple star researchers re the problems encountered in designating stellar components. This discussion resulted in a multi-Commission meeting on the topic at the IAU General Assembly which is summarized above.

## 2.4. Task Group Data Centers and Networks (August 16th, 2000)

Astronomy data centers around the world have developed a very efficient collaboration, and networking of astronomical information, from observatory archives to on-line journals, has been rapidly implemented in the last years. Hence the proposal to change the Task Group to a Working Group. The very rapid emergence of the concept of Virtual Observatory in the last months, and the need for an international forum on the subject, leads to extend the purpose of the Working Group and to propose the creation of a Working Group 'Virtual Observatories, Data Centers and Networks'. A Symposium or Joint Discussion will be proposed for General Assembly XXV.

The activities of CDS (F. Genova), ADC (C. Cheung) and the Japanese Data Center (S. Nishimura) were briefly presented.

F. Genova  
*Secretary of the Commission*