

COMMISSION 5: DOCUMENTATION AND ASTRONOMICAL DATA
DOCUMENTATIONS ET DONNEES ASTRONOMIQUES

Report of Meetings 21 and 27 November 1985

CHAIRMAN: W.D.Heintz

Activities of the Commission, its Working Groups, and the representation in CODATA and ICSTI were reported and discussed. The Organising Committee has approved G.A.Wilkins and B.Hauck, respectively, as president and vice-president; P.Wayman and G.Westerhout will replace Hauck and L.Schmadel on the OC, and nine new members raise the membership tally to 67. The major part of discussions was occupied by efforts toward a reasonably comprehensive resolution text on nomenclature (see "Designations", below, and IAU Resolution C3).

Late contributions supplementing the Commission Report: The Space Science Dictionary (J.Kleczek) is nearing completion. The body of the volumes, 5000 pages, has largely been typed by Dr. and Mrs.Kleczek; the alphabetical indexes are being currently prepared, and negotiations to arrange for publication are under way.

The International Colloquium on "Stellar Catalogues: Data Compilation, Analysis, and Scientific Results" convened in Tbilissi, September 10 - 15, 1984, organised by the Soviet Astronomical Datacenter, Abastumani Observatory, the Georgian Academy of Sciences, E.K.Kharadze (LOC Chair), and C.Jaschek (SOC Chair). Problems of catalogue compilation, datacenter activity and development plans were covered. It was appreciatively acknowledged that datacenter representatives of different countries do sometimes need to strengthen their scientific bonds by meeting in person and not only online. Publication of the proceedings in Bull. Astrophys.Obs. Abastumani 59 is expected in late 1985 (O.B.Dlushnevskaya).

A first report on vocabulary activity in China was presented by Miao Fu-He: Astronomy vocabulary defined as a long-term task (1922); translation committee established (1930); a five-language dictionary appeared in 1934, and new English/Russian/Chinese editions in the 1950's. English/Chinese glossaries (1974-85), including an edition by T.Kiang (Dublin), have now increased to 16 000 astronomical terms and seven appendices. The committee on astronomical terminology, (founded in 1983, Chair Y.C.Chang) studies translation of terms, also from ancient Chinese books, and of references.

B.Corbin (USNO, Washington), "Commission 5 and Astronomy Libraries: A Cooperative Venture", commented on the importance of the "Astronomy and Astrophysics Abstracts", the bibliographic description of IAU publications, and the preservation of historical material. Plans are under way to digitally store 19th-century observatory publications on optical disks. B.Corbin also described the "Union List of Astronomy Serials", published in 1983. Toward the preparation of a 2nd edition, librarians worldwide are urged to supply additions and corrections. A meeting of astronomy librarians (the first since Hamburg 1964) will be arranged - at the occasion of the IAU GA in 1988 - between USNO, the Special Libraries Association, and R.Shobbrook (Anglo-Australian Obs., Epping) who points out that (1) the frequently isolated work of librarians needs more communication, (2) methods and procedures in libraries, particularly where applications of new technology are concerned, are to be discussed, (3) improvements in the collection, organisation, and dissemination of information, as fostered by the contacts between librarians and scientists through Commission 5, will be benefits for research.

Working Group on Astronomical Data (IAU Commission 5)Report of Meeting 26 November 1985

CHAIRMAN: B. Hauck

SECRETARY: A. Heck

Chairman's Report: B. Hauck summarised the WG activity over the past three years, especially in relation with CODATA work. The proceedings of the Trieste School on "Data Handling in Astronomy" (1984) have been published in Mem.Soc.Astr. Ital. 56 (1985). Subsequent discussion emphasized the two-way learning process of the relationship with CODATA.

Officers and Members: The new Organising Committee has been elected as follows: O.B.Dlushnevskaya, B.Hauck (ex officio), A.Heck, C.Jaschek, H.Jenkner, G.Lynga (Vice-Chairman), S.Nishimura, A.G.D.Philip, W.Warren, G.Westerhout (Chairman), and G.A.Wilkins (ex officio). - Continuing members are W.P.Bidelman, R.Duncombe, P.Grosbol, W.D.Heintz, J.Mead, L.E.Pasinetti, F.Spice, Y.Terashita.

The following were proposed and accepted as new members: V.K.Abalakin (Pulkovo), L.Benacchio (Padova), M.Bessel (Mt.Stromlo), H.R.Dickel (Los Alamos), K.F.Hartley (RGO), H.Jenkner (STScI), J.C.Mermilliod (Lausanne), A.Pamyatnikh (Moscow), G.Sedmak (Trieste), A.Uesugi (Kyoto), D.C.Wells (NRAO).

The meeting expressed its gratitude to the retiring chairman B.Hauck for his dynamic and efficient leadership over the past six years.

Microfiche on Standard Stars: A.G.D.Philip informed the assembly that the first version of the microfiche has been included in the proceedings of IAU Symposium 111, just published by Reidel Co. The second edition is planned for March 1986 and will be published by CDS.

Miscellaneous: Priorities for the next three years were discussed, in particular the integration of radio data into the data banks.

SCIENTIFIC MEETING A: Problems due to the large amount of data from Space Astronomy.

CHAIRMAN: G. Westerhout.

J.Mead: Coping with the IUE and IRAS data from the user's point of view. Data products and software routines developed to handle the large amounts of data from the International Ultraviolet Explorer (IUE) satellite and Infrared Astronomy Satellite (IRAS) were described. These products include cross identifications of infrared objects, special atlases of ultraviolet objects, and bibliographical indices of UV and IR objects from a search of the literature.

H.Jenkner: Comments on astronomical data related to the Hubble Space Telescope. Space Telescope data -- ranging from proposal, engineering, and spacecraft data to the various kinds of scientific data -- will amount to 2.5 Gbyte per day or 13.5 Tbyte over the ST lifetime. Other ST related databases already under development are the Guide Star Catalogue (about 30 million objects), the Guide Star Photometry Catalogue (9000 stars), and the Guide Star Image Archive (1500 plates, 14 000 x 14 000 each). - In the following discussion A.Heck informed the meeting that a conference will be held in autumn of 1987 at the ST-ECF in Garching (FRG) on "Astronomy around large data bases: Scientific objectives and methodological

approaches", dealing essentially with the statistical methodology applicable to reduced data.

SCIENTIFIC MEETING B: Astronomical Catalogues - Transfer and Archiving.

CHAIRMAN: B.Hauck.

P.Grosbol: Extension of FITS to catalogues. During the last three years the Data Exchange Task Force has carried out a project of an extension of FITS (Flexible Image Transfer System) to tables and catalogs. The detailed proposal is published in the proceedings of the Trieste Seminar (Mem.Soc.Astr.Ital. 56, 437,1985). This extended format has been verified by exchange of catalogues between NASA WDC-A, NRAO, and ESO.

W.Warren: Can we use FITS for catalogues? The FITS format is suitable for distributing machine readable catalogs on magnetic tapes, although the format introduces certain constraints in the flexibility of tape characteristics and documentation. We intend to prepare FITS headers for major catalogs as time permits, but will retain the capability to distribute catalogs as simple character coded files as at present.

W.Warren: General philosophy concerning modification and archiving of astronomical catalogs. We believe that the primary roles of astronomical data centers are to acquire catalogs as produced, to prepare machine versions, to quality assure them for completeness, homogeneity, and standard presentation of data, to add adequate documentation (in particular when an original catalog is modified), correction of errors in consultation with authors, error-alert previous recipients of the material, and to arrange dissemination with adequate accompanying information. - In a later discussion, Warren specified archiving conditions as: easy-to-use character form, uniform formatting of the data body, availability of documentation on revised and corrected data, and (a FITS requirement) separation of text from data. Further guidelines on the cooperation between authors and data operators are deemed desirable.

G.Westerhout: Data networks and communications. The most common method for communication is through a modem using ordinary voice networks. Data exchanges through packet-switching networks encounter still difficulties to cross borders. Special astronomical networks are available in some countries. Remote control of telescopes is also implemented. Various examples were cited, also in fields other than astronomy.

A.Heck: Strasbourg meeting on a European astronomical data network. In November 1985 a highly successful meeting was held at CDS (Strasbourg) to review the various achievements and plans with respect to establishing national and international astronomical data networks (see Proceedings in CDS Bull. 30). An "International Directory of Professional Astronomical Institutions" with listing of institutional computer access identifications is being prepared at CDS.

TASK FORCE ON ABSTRACTING GUIDELINES.

The Commission met briefly on 23 November to consider the preliminary report by L.Schmadel (absent) as published in Bull. CDS 28, 95 (1985), which will be considered for the new IAU Manual. R.Wielen (Heidelberg) reported on the current status of the Astronomy and Astrophysics Abstracts (AAA), and W.Lueck (Karlsruhe) on the services and near-future plans of the Fachinformationszentrum Physik. P.Lantos has his vocabulary version completed, save for some more concordance with the AAA version.

WORKING GROUP ON DESIGNATIONS (IAU Commission 5)Report of Meeting 19 November 1985

CHAIRMAN: F. Spite

Contributions and discussions are being prepared for publication in a forthcoming CDS Bulletin. C.Jaschek had previously contacted the IAU Commissions concerning the problems encountered in the proliferation of celestial-object designations. The major part of the meeting was devoted to drafting designation guidelines and caveats. Through appreciable efforts particularly by F.Spite and by H.Dickel, on behalf of the WG Nomenclature of Commission 34, the draft went through several subsequent, informal meetings (with members of Commissions 28, 37, and 40 participating) and several modified versions, until finalised by Commission 5.

JOINT SESSION OF COMMISSIONS 5, 38, 46: DEVELOPING ASTRONOMICAL INSTITUTIONSReport of Meeting 25 November 1985

CHAIRMAN: J.-C. Pecker

The IAU EC has suggested that the problems be considered, with which new centers of research (particularly, though not exclusively, in "developing countries") are confronted.

The major needs, and burdens on the budgets, are past and present books, serials, and abstract publications. Microfilm copies are of limited availability. It was noted that reduced "individual" serials prices are sometimes already granted to third-world libraries; further contacts through organisations (ICSU) with publishers are suggested. The continuation and updating of the Serials List was encouraged, and so was the formation of national bibliographic centers; existing centers have already shown their usefulness through providing literature documentation and access. Long mail delays of serials shipments (sometimes inevitable due to geographic distances, but sometimes surprising and excessive) are an aggravating impediment. Information about preprints (as in *Astrophys.J.*) is thus appreciated.

The shortage of instruments makes an international trading post for (unused but available) equipment feasible; the IAU will be approached to make the IAU Bulletin accessible to "Wanted" ads. Travel support is more difficult to get for the instrument technicians than for researchers. Attention was called to the Newsletter of IAU Commission 46 on educational materials.

The services provided by scientific and bibliographical databanks often encounter shortcomings at the receiving end, i.e., through the lack of linking data-centers in many countries, and through the incompatibility of computers and tapes. A Working Group within IUGG is already considering this problem. - The agenda being unfinished, the topic - with review of possible progress, and exploration of administrative avenues - is intended to be resumed at a future meeting.