COMMISSION 6 : ASTRONOMICAL TELEGRAMS (TELEGRAMMES ASTRONOMIQUES)

Report of Meeting, 5 August 1988

President: A. Mrkos Secretaries: E. Roemer, B. G. Marsden

President Mrkos called the meeting to order and requested members to stand in memory of Carlos Ulrrico Cesco and Karl-August Thernöe, each of whom had died during 1987. Though long retired from the Commission, the latter had assisted in the work of the Central Bureau for Astronomical Telegrams since the 1940s, serving as Director from 1960 until the Bureau moved from Copenhagen to Cambridge at the end of 1964. Mrkos also remarked on the Commission's cosponsorship of IAU Colloquium No. 98 on the role of amateurs in astronomy.

Reporting on the recent activities of the Bureau, Director Marsden remarked that the past triennium had seen substantial changes. Although the Computer Service, which allows users to log in to computers at the Smithsonian Astrophysical Observatory and read the IAU *Circulars* as soon as they are issued, has been operating since early 1984, the appearance of SN 1987A caused the number of these subscribers suddenly to triple—to more than 100. Fortunately, SAO's system of VAX computers was just at the time in the process of being incorporated into SPAN, the Space Physics Analysis Network, and the necessary arrangements could be quickly completed. Over the course of only a few days in February 1987 the IAU *Circulars* were changed from what was essentially a printed publication with an electronic version to an electronic publication with a printed version. From then on, *Circulars* were entered into the Computer Service whenever needed, at all hours of the day and on any day of the week, while the printed copies were issued and mailed in batches once or sometimes twice each week. NASA had very generously made it possible for legitimate subscribers to use free or very inexpensive local computer networks to access the NSSDC computer, whence they were switched to SAO. Finally, in July 1988, the Bureau began routinely sending the *Circulars* to the 50-percent or so of the Computer Service subscribers who could be reached by SPAN or BITNET. While *Circulars* can sometimes be received within minutes, these networks do sometimes introduce extensive delays, but users still have the option of logging in themselves to see if more recent *Circulars* are available.

Marsden emphasized that the printed *Circulars* had not been rendered completely obsolete. Unfortunately, electronic communication was currently restricted to the nations of the first world. In the case of disagreement, the printed version should still be regarded as the "official" one, and the computer dissemination does not allow the use of subscripts and Greek letters, for example. Beginning in April 1988 the appearance of the printed *Circulars* was greatly improved with the use of TEX: to some extent they now resemble the old typeset Copenhagen *Circulars*.

With the electronic *Circulars*, the traditional coded telegraphic distribution of information had now become rather obsolete, at least in the first world, and Marsden was trying to discourage subscribers from using it. He recognized, however, that telexes and cablegrams—though expensive by modern standards—were still very necessary for communication to many other countries. The Bureau was in the process of eliminating its old-fashioned punched-paper-tape telex machines and would in the very near future be transferring telex activity to computers and Western Union's EASYLINK system.

In answer to a question from R. M. West, Marsden noted that there were still about 70 or 80 telegram (including mailgram) subscribers in North America, and perhaps 100 more in other parts of the world. A. Ratnakar, an information scientist from India, urged the continued use of telegrams, noting that the printed *Circulars* with information on the millisecond pulsar reached his country too late to be of much use. Since the telegrams have heretofore been restricted to information on transient objects, use of them for objects such as pulsars would be a considerable break with tradition and potentially extremely expensive. There was some discussion of the possibility of telefaxing selected *Circulars*, but both Marsden and West commented adversely on this very limited technology. It seemed more promising to encourage the use of electronic mail in the second and third worlds, and in this connection Marsden was asked to prepare a note for the daily *IAU Today* newspaper in the hope of finding appropriate routes and contacts. While on the general subject of telegrams, Marsden mentioned a letter from a U.S. amateur astronomer proposing changes in the five categories currently used. Traditionally, the great majority of the telegram subscribers had received just single messages announcing the discoveries of bright comets and novae. Follow-up information was sent to more specialized categories that also covered discovery announcements of faint objects. It seemed reasonable now to modify the categories so that those interested in ephemerides of bright comets would not also have to pay for messages about comets that were too faint for them to observe.

In a discussion on the Central Bureau's finances, Marsden noted that the introduction in late 1985 of a MicroVAX for the Bureau's use (also in conjunction with the Minor Planet Center), as well as NASA's generosity in response to SN 1987A by providing for a backup MicroVAX, had considerably reduced the direct charges made to SAO for usage of its central computers. The strictly calendrical accounting system, introduced in 1986, for subscriptions to the *Circulars* had also been basically beneficial, in spite of the tremendous increase in the rate of issue of the *Circulars*—more than 200 per year since SN 1987A. The salaries of assistant directors Green and Bardwell must be paid entirely from subscriptions to the IAU *Circulars* and *Minor Planet Circulars*. Although brought up as a sore point at the 1985 meeting, the 20-percent overhead charged by the Smithsonian Institution on all the expenditures of the Central Bureau and Minor Planet Center was now considered reasonable. The IAU subventions represent a small part of the total budget, but they are necessary if the service is to be maintained to important observatories in parts of the world from which it is often difficult to receive timely payments. Roemer wondered about the possible financial impact of secondary electronic dissemination of the IAU *Circulars*. Judging by the continuing steady number of primary subscribers, it did not seem that this was much of a problem, although it could clearly become one in the future. It was obviously impossible, and rather unreasonable, to clamp down on secondary distribution entirely, and a better approach was simply to ask secondary distributors to encourage their customers to take out direct subscriptions.

Mention was made of the fiasco in November 1987 following the unfortunate and widespread announcement of the unconfirmed discovery of a supposed supernova in M31. That no other erroneous information disseminated by the Central Bureau in more than 65 years of operation was accorded such a response was testament to the Bureau's generally remarkable reliability. Y. Kozai noted that the Executive Committee had received a complaint about the Bureau's publication of "predictions in retrospect". Marsden was aware of the particular action that led to this complaint; it had come at the height of the activity on SN 1987A, and he felt that it was an isolated occurrence.

The new officers of the Commission were confirmed as Roemer, President, and J. Grindlay, Vice President; and West joined Marsden as a member of the Organizing Committee. In addition to West, the following were confirmed as new members of the Commission: K. Aksnes, A. V. Filippenko, A. C. Gilmore, S. Isobe and A. S. Sharov, the last-named replacing D. Ya. Martynov as representative for the Sternberg Astronomical Institute.