6. ASTRONOMICAL TELEGRAMS (TÉLÉGRAMMES ASTRONOMIQUES)

(Committee of the Executive Committee)

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1. INTRODUCTION

From reading the following report, we can see that the Central Bureau for Astronomical Telegrams is contributing to several fields of astronomy in which the interest of our colleagues continues to increase. In addition to the subscribers to the telegrams themselves, more than 850 astronomers, including many amateurs, receive the *Circulars*, which are prepared from the reports of the observers. Modern techniques, such as radio and X-ray astronomy, supply theoreticians with new data and sometimes provide the first identification of a transient phenomenon. In 1975 in particular there was no dearth of transient astronomical phenomena: record numbers of both comets and novae, several transient X-ray sources, and a new satellite of Jupiter, to mention just a few of the highlights.

Thanks to B. G. Marsden, Director of the Bureau, and to the continued support of the Smithsonian Astrophysical Observatory, astronomers have at their disposal an efficient and relatively inexpensive mechanism for prompt cooperation that must be the envy of scientists working in other fields.

P. SIMON
President of the Commission

2. REPORT OF THE CENTRAL BUREAU FOR ASTRONOMICAL TELEGRAMS

The Central Bureau has continued to operate at an increased level of activity during the triennium 1973-75. Although the number of 'telegram books' issued was essentially the same as during the previous triennium, the number of *Circulars* has been well in excess of 100 in each of the years under consideration. The actual number of occasions on which the *Circulars* were published has shown a relatively small increase, however, for the great majority of the *Circulars* were distributed two and even three at a time. The statistics for the number of occasions on which telegram books and *Circulars* were issued are:

	Telegrams	*Circulars*
1973	39	78 (Nos. 2476–2613)
1974	34	60 (Nos. 2614–2736)
1975	49	78 (Nos. 2737–2893)

The resolution adopted at the meeting of Commission 6 in Sydney, allowing the Director of the Bureau to exercise discretion concerning the items accepted for publication, has certainly prevented the number of *Circulars* issued from increasing even further. Several dozen contributions on non-transient events (such as announcements of the identification of interstellar molecules and the routine discovery of pulsars) have been rejected as more suitably published in the conventional astronomical literature.

The great activity thus reflects the fact that an unusually large number of transient and unexpected phenomena occurred during the triennium. A record number of new comets (nine in 1973, five in 1974, thirteen in 1975) was discovered, and several of them – but most notably the widely publicized Comet Kohoutek 1973 XII – inspired considerable interest on the part of observers. Several novae were reported, five of them during a three-month interval in 1975: no fewer than 15 full pages of *Circulars* (during an interval of 30 days) were devoted to Nova Cygni 1975, the brightest nova to appear since 1942. Another of these five novae, Nova Monocerotis 1975, was first recognized at X-ray wavelengths (as the brightest celestial X-ray source on record), and indeed, the increased sensitivity and pointing accuracy of the instruments on satellites such as Copernicus, Ariel 5 and SAS 3 has caused the Central Bureau to be increasingly involved in disseminating information on transient X-ray sources. It is still debatable whether the Bureau should be involved in publishing many relatively routine follow-up observations, although judging by the number of enquiries received by the Bureau there is evidently value in the rapid publication of much of this material.

Other items on the *Circulars* have included announcement of the discovery of two new satellites of Jupiter, the recovery of 1932 HA Apollo, the discovery of four new Apollo- or near-Apollo-type objects, unusual activity on Mars or Jupiter and predictions of occultations by minor planets (leading to the first confirmed observations of such an occultation, that of κ Geminorum by Eros in January 1975). In addition there have been approximately the normal number of discoveries of supernovae in external galaxies and predictions for and recoveries of short-period comets.

Further cutbacks have forced the Communications department of the Smithsonian Astrophysical Observatory to close at 8 p.m. daily, although special arrangements can be made for distributing urgent messages until midnight. Dr P. Simon continues to handle the distribution of telegrams in most of Europe, including now The Netherlands. The closure of the NASA facility in South Africa has resulted in arrangements being made to distribute telegrams via the South-African Astronomical Observatory. In the aftermath of Nova Cygni 1975 our telegraphic service received a large number of new subscribers. One useful innovation has been the establishment of a special telephone line (its number is 617-864-5758) on which messages for the Central Bureau can automatically be recorded at any time of day or night. Nevertheless, several contributors continue to create some inconvenience by communicating non-urgent information by telegram or telephone when an airmail letter would be quite sufficient.

As noted in the report of the Sydney meeting, the billing system for the *Circulars* was changed in May 1973 to accommodate those who wish to receive their bills on a calendrical basis. The cost to such subscribers – irrespective of their geographical location – would be 20¢ per *Circular*, this amount having been increased to 22¢ in March 1974. Subscribers who do not require bills and who keep track of their own accounts were offered the special rate of 15¢ per *Circular*, increasing to 16¢ in March 1974. The new billing system allows us to restrict our working on the accounts to only a few days around the end of each month. The number of subscribers to the *Circulars* has increased fairly steadily from 751 in May 1973 to 875 in December 1975.

A second edition of the Central Bureau's *Catalogue of Cometary Orbits* was issued in April 1975. Some 20% larger than its predecessor, its price was proportionately increased to $3.00 (or $5.00 to those overseas who wish to receive it by airmail).

The increased income from subscriptions to the *Circulars* has enabled the financial support received from the Smithsonian Astrophysical Observatory to be minimized. Nevertheless, this increase has been offset to a considerable extent by the rising costs of printing and postage, and the continuing annual subvention of $660 from the IAU is greatly appreciated.

B. G. MARSDEN
Director of the Bureau