6. ASTRONOMICAL TELEGRAMS (TELEGRAMMES ASTRONOMIQUES)

(Committee of the Executive Committee)

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I. INTRODUCTION

During the triennium, Commission 6 continued to interact with the Central Bureau for Astronomical Telegrams (CBAT) under the very effective directorship of Brian Marsden. A widening of the associated astronomical subjects recorded in the *IAU Circulars* was noted. There is no doubt that these *Circulars* continue to play an important role for the fast dissemination of astronomical information. The trend towards a preference for electronic distribution by the recipients cannot be overlooked.

During this period, a major activity of the Commission was the continued search for means to make access to the *IAU Circulars* and the information therein faster and easier. While a number of unauthorized copying activities have been discovered (testifying to the value of this material), the question naturally has arisen whether it would not ultimately be desirable to provide the *IAU Circulars* in electronic form only, and entirely free of charge. However, this idea is confronted with the necessity of providing adequate funding support to the Central Bureau. At the end of the period, sources for such funding had not been identified, although there was some hope that the salary costs of one staff member at the CBAT might be borne by an external agency.

Appreciation is due for the support provided to the CBAT by the Smithsonian Astrophysical Observatory, and special gratitude is expressed to Dr. Marsden and the members of the staff and volunteers for their hard work and praiseworthy dedication to tbe needs of astronomers around the world for rapid access to information.

We are sad to record the death during the triennium of two Commission members.

Michael P. Candy (1928–94) of Perth, Australia, was associated with the Commission for many years, notably as Vice President (1979–82) and President (1982–85). Originally from England, he went to Australia in 1969 to take up a position at the Perth Observatory, of which he became the director in 1984. He was a prolific discoverer of minor planets, and he found Comet 1960n. He was also extremely active within the fields of astrometry and orbital computations.

Tonda Mrkos (1918–96) was born in Moravia and he entered the University in Brno in 1938. His studies were interrupted by the onset of World War II, and in 1945 he became a staff member at the Skalnaté Pleso Observatory in Slovakia. It was from here that he carried out his extremely active cometary programme and became the discoverer of several unusual comets, the most famous of them the bright Comet 1957d. Beginning in 1968 he made photographic observations at Kleť and extended this activity to minor planets in 1977. For many years he was the most regular contributor of data to the Minor Planet Center. He was Vice President of Commission 6 during 1982–85 and President during 1985–88.

R. M. West

President of the Commission

II. REPORT OF THE CENTRAL BUREAU FOR ASTRONOMICAL TELEGRAMS

In the last report the continued use of traditional *telegrams* for disseminating information was strongly questioned. In the absence of objections, the telegram service was formally terminated on 1993 Sept. 30. The Bureau continued to maintain its TWX number for incoming telegrams (for the benefit of contributors without access to e-mail), but use of this number was terminated on 1995 July 1. The *Circulars* continue to be disseminated in both electronic and printed form, the activity in each half-year during the 1993–1996 triennium having been as follows:

	Circulars
1993 July-Dec.	Nos. 5828–5914
1994 Jan.-June	Nos. 5915–6011
1994 July-Dec.	Nos. 6012–6122
1995 Jan.-June	Nos. 6123–6181
1995 July-Dec.	Nos. 6182–6281
1996 Jan.-June	Nos. 6282–6426

The *Circulars* activity was down 23 percent from the previous triennium. The principal reason for this was the introduction, in Sept. 1993, of the series of *Minor Planet Electronic Circulars* by the Minor Planet Center. As the title implies, these *Circulars* are not issued in printed form. Introduced as an efficiency measure to save both postage costs and preparation time, the arrangement has been to make them freely available to those who subscribe to the *IAU Circulars* in electronic form. As the title also implies, they are used to relay urgent information on "unusual" minor planets that previously appeared on the *IAU Circulars*. The change has in fact been very beneficial, for the outcome is that much *more* information is quickly made available on these objects than was previously feasible. Unusual minor planets have conveniently included the 30-odd transneptunian objects (or Kuiper Belt candidates) discovered during the triennium. Although early observations and orbital information for new comets have continued to be given on the *IAU Circulars*, follow-up astrometric and orbital data have also conveniently been given on the *MPEC*s. Also contributing to the reduction in the number of *IAU Circulars* has been the change in the designation system for comets, introduced at the beginning of 1995, that no longer recognizes the routine and repeated recoveries of short-period comets at every return; in general, a recovery is now acknowledged (and a new designation provided) only at a comet's second apparition.

The Sept. 1993 changes also made it possible for subscribers to the electronic services to do so without also subscribing to the printed *Circulars*. This has caused the number of electronic subscriptions to increase to 550 (from only 250 three years ago), while the number of printed subscriptions has decreased to 450 (down from 700). In Jan. 1995 the monthly subscription charges for the printed *Circulars* were increased to $15.00 at the invoiced rate and $9.00 at the uninvoiced rate. The corresponding charges for an electronic subscription were *reduced* to $10.00 and $6.00, respectively. Despite this reduction (which amounted to 25 percent), piracy of the *Circulars* is a growing problem, both in terms of extensive redissemination (i.e., copyright infringement) and of unacknowledged posting of extracted material in the World Wide Web (i.e., plagiarism). The Bureau itself maintains a presence on the World Wide Web (thanks to the efforts of G. V. Williams), and this allows the acquisition of *Circulars* free-of-charge when they are a year old.

The scientific highlight of the triennium was, of course, the impact of the 20 or so components of comet 1993e (= 1994 X = D/1993 F2) on Jupiter in July 1994. Other items of particular interest involved the discoveries of a bright supernova in M51 and the comets C/1995 O1 and C/1996 B2, as well as a short-lived, anticipated display of the α Monocerotid meteors in Nov. 1995.

B. G. Marsden
Director of the Bureau