6. ASTRONOMICAL TELEGRAMS (TELEGRAMMES ASTRONOMIQUES)

(Committee of the Executive Committee)

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I. INTRODUCTION

Throughout the triennium, Commission 6 has interacted with the Central Bureau for Astronomical Telegrams (CBAT), most ably headed by Brian Marsden. As will be seen from his report below, the use by scientists of the *Circulars* for rapid dissemination of astronomical and related news continues unabated.

As the value of web-based information exchange increases steeply, not least within the area of astronomy and astrophysics, it is gratifying that the *Circulars* can now be made available on the web to all interested parties, following the identification of a satisfactory solution to the mostly budgetary problems, mentioned in the report for the preceding triennium. There is no doubt that this most welcome development has led to an even wider distribution and their early availability of the *Circulars* in additional circles. The large number of daily hits at the new website is a clear sign of this.

Although dedicated mailing lists and websites have recently been established to serve a limited number of specialists within some research areas, the *Circulars* continue to provide a major vehicle for fast and reliable information about a great variety of particular events and results. The inherent screening process continues to function well and guarantees a consistently high quality level. There is no doubt that this official IAU newsservice performs an indispensable function, also in a fast-changing communication environment.

Great 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 continued hard work and praiseworthy dedication to the needs of astronomers around the world for rapid access to information.

R. M. West

President of the Commission

II. REPORT OF THE CENTRAL BUREAU FOR ASTRONOMICAL TELEGRAMS

A record number of *IAU Circulars* were issued during the 1996–1999 triennium:

	Circulars
1996 July-Dec.	Nos. 6427–6528
1997 Jan.-June	Nos. 6529–6689
1997 July-Dec.	Nos. 6690–6801
1998 Jan.-June	Nos. 6802–6958
1998 July-Dec.	Nos. 6959–7079
1999 Jan.-June	Nos. 7080–7212

Subscribers may receive the *Circulars* in printed and/or electronic form, the latter being available by e-mail or by logging in to the Computer Service, either directly on the Bureau's computers or via the World Wide Web.

Following a change made at the time of the meeting of Commission 6 in Kyoto, the *Circulars* are in fact also now *freely* available on the WWW, generally after a delay that can amount to 72 hours. Understandably, this has caused some reduction in the number of subscribers, that for the printed *Circulars* decreasing from 437 at the start of the triennium to 325 at the end. The number of subscribers to the Computer Service actually showed a small *increase*, from 555 to 565, although it should be borne in mind that this number reached a maximum, 602, one month before the Kyoto meeting in August 1997. There are also several other features involving the Bureau in WWW pages `http://cfa-www.harvard.edu/iau/cbat.html` maintained by G. V. Williams.

Supernovae and comets and supernovae have continued to dominate the activities of the Bureau, with the announcement during the triennium of the discovery of 495 of the former and 160 of the latter. Eight of the supernovae were of magnitude 14 or brighter at discovery, and 130 were of magnitude 23 or fainter. Seventy of the comets (including one not credited because an orbit solution could not be made) were found near the sun by the LASCO white-light coronagraphs aboard the Solar and Heliospheric Observatory (SOHO) spacecraft, while 29 were credited to the LINEAR program for near-earth objects. Just as had been anticipated for more than a year and a half, comet C/1995 O1 (Hale-Bopp) put on a splendid show for northern-hemisphere observers in 1997 (during which year it was the subject of 57 *Circulars*), when it was continuously at first magnitude or brighter from mid-February until early May.

Other discoveries of particular interest have ranged from two irregular outer satellites of Uranus to γ-ray bursts. The latter have often led to the recognition of optical counterparts and sometimes the detection at radio wavelengths. Although several of the more definitive events are still being covered on the *IAU Circulars*, the burgeoning activity spawned the development of a useful series of "GCN" alerts (GRB Observation Reports) by the Goddard Space Flight Center.

The most "notorious" announcement on the *IAU Circulars* concerned the possibility of a very close approach of 1997 XF_{11} to the earth in 2028. In terms of the information available at the time, the announcement was in fact basically correct, and the purpose was to elicit further observations to clarify the matter. While the announcement was widely misunderstood and misinterpreted, it was immediately successful in inspiring a search for images of 1997 XF_{11} in the past, thereby enabling the conclusion that this object could not pose any danger to the earth for millennia to come.

B. G. Marsden
Director of the Bureau