ANNUAL REPORT OF THE
CENTRAL BUREAU FOR ASTRONOMICAL TELEGRAMS

1999

In terms of *IAU Circulars* published, 1999 was the fifth most active year on record. With 261 issues, the count was behind those for 1991, 1992, 1997 and the record 278 of 1998. The most popular topics covered were supernovae, which were mentioned on 59 percent of the *Circulars*, and comets, mentioned on 48 *Circulars*. These were followed by novae (15 percent) and γ-ray bursters (10 percent).

1999 was a clear record year for supernovae, with 204 new discoveries. This was actually also the number of announcements of new discoveries, for although five of the 1999 supernovae were not reported until 2000, there were reports in 1999 of five new supernovae recognized from earlier years. Half a dozen of the supernovae, notably 1999by in NGC 2841 and 1999em in NGC 1637, became as bright as magnitude 13–14, while eight others were fainter than magnitude 24.

The year was also clearly a record one for comets, of which 109 were given 1999 designations. Sixty-two of the comets were found using the white-light coronagraphs aboard SOHO, the Solar and Heliospheric Observatory spacecraft. Only 19 of these were actually found in 1999, together with 39 other comets and one comet recognized in 1997 data obtained with the SOHO SWAN coronagraph. The three bright visual discoveries of comets during the year, C/1999 A1 (Tilbrook), C/1999 H1 (Lee) and C/1999 N2 (Lynn), qualified for the new Edgar Wilson Award for comet discoveries, as did the amateur CCD discoveries P/1999 DN_3, P/1999 WJ_7 (not announced until 2000), P/1999 X1 and three comets from the second half of 1998.

There were also reports of five galactic novae and of four novae in the Small Magellanic Cloud. Brighter than third magnitude in late May, V382 Velorum was the brightest nova since V1500 Cygni in 1975. Two of the 1999 novae were in Aquila, and the remaining novae were in Sagittarius and Circinus.

The eleven γ-ray bursters mentioned on the *IAU Circulars* in 1999 represent slightly fewer than half of the total recorded during the year. More extensive information on these events is being given in the *GCN* service of NASA's Goddard Space Flight Center. This is reasonable, given that this service disseminates the communications—errors and all—automatically, in contrast to the verification and editing that has traditionally been associated with the publication of the *IAU Circulars*.

Three very faint new satellites of Uranus were reported during the year, and they were successfully recovered at the 2000 opposition. Together with the similar but somewhat brighter bodies discovered in 1997, these make a total of five irregular, outer satellites for this planet.

The number of subscribers to the printed edition of the *IAU Circulars* has continued to fall, from 337 at the start of the year to 302 at the end. The reduction in the number of paid subscribers to the e-mail version via the Computer Service that is shared with the Minor Planet Center is implicit in the report of the latter. Although many users undoubtedly consider the ready availability of the *Circulars* in the WWW (albeit after some delay) a plus, there is a cost associated with the production, and sooner or later this will have to be recognized. Even a small staff that is unsupported may eventually draw the line at being open for business 14 or more hours a day and seven days a week. As in recent years, most of the *Circulars* in 1999 were prepared by Bureau Associate Director Daniel Green, with backup from the undersigned—and from Minor Planet Center Associate Director Gareth Williams (who is routinely responsible for the Bureau's presence on the WWW) when both were away in August. Muazzez Lohmiller has efficiently taken care of the accounts, addressing of envelopes and other administrative matters.

This is my thirty-second and last annual report as Director of the Central Bureau for Astronomical Telegrams. At the IAU General Assembly in Manchester Dan Green will succeed me in this position, as I become Director Emeritus and President of Commission 6. I take this opportunity to remark that, like most jobs, that of the CBAT Director can be both rewarding and frustrating. I have very much appreciated the forging of friendships with numerous astronomers, professional and amateur, past and present, in many countries around the world. I also thank all those people at the Smithsonian Astrophysical Observatory and elsewhere who have helped, in so many ways, to get the information out, in as timely a fashion as possible, particularly in the pre-e-mail era when a February blizzard could close the Observatory for several days to all but a token employee in the old Communications Center of the Satellite-Tracking Program. Actually, the frustration is low, and it is generally limited to a lack of time—whether it be the time required to put together a more complete and coherent summary of a complex situation or the time needed *now* on a large telescope to make some critical follow-up observation...

Brian G. Marsden
Director of the Bureau