Stanley William Milbourn, 1925-1997

Stan Milbourn, who died on 1997 August 24, was born on 1925 September 5 at Hampton, Middlesex to the southwest of London. The next year his parents moved to nearby Thames Ditton where the family had owned a grocery store since 1855. He was an only child.

Stan attended Ewell Road School, Surbiton, but his education was cut short by the outbreak of World War Two in 1939. His first job was with the Merchant Navy Officers Pension Fund at Esher and Ewell, and then in 1944 he joined the Royal Air Force and trained as a navigator. But with the end of the war approaching and a shortage of meteorologists, he was transferred to the Air Ministry in London where he served until demobilised in 1947. He was already very interested in the weather having built a weather station in his back garden during his schooldays.

Stan Milbourn (c.1980)

Another of Stan's great interests was cricket. He was coached by his paternal grandfather who was a former Surrey cricketer and Stan, who developed into an excellent batsman and slow left-arm bowler, declined several offers to become a professional cricketer. He decided that his future was in the family business which needed to be built up again after the food rationing and shortages of wartime. He married Eileen in 1949 and they worked together in the business until it was sold in 1971. They then moved to a village Post Office at Copthorne Bank, West Sussex until they retired in 1990 when they settled in Cam near Dursley in Gloucestershire to be near relatives and enjoy darker skies.

Stan's interest in the sky, the weather and astronomy started at an early age. His mother used to point out the stars to him in his pushchair when returning from visits to his grandparents. National Service and the need to put the family business on a sound footing took priority over astronomy and computing in the nineteen forties and much of the fifties.

Stan was elected to the membership of the Association in 1957 November, the month following the launch of the USSR Sputnik 1, the first successful artificial Earth satellite. The visual observation of artificial Earth satellites was to become an important aspect of his astronomical work. He often managed to get observations in difficult conditions when others were less successful. In 1965 the *Journal* published his paper on making predictions for observing artificial satellites.' He had a worldwide reputation for the accuracy of his satellite observing. As an example, King-Hele and Walker analysed observations of the Cosmos 54 rocket by 36 visual observers, the special satellite-tracking Hewitt camera and a kinetheodolite: Stan's residuals were the lowest of the visual observers and actually better than those of the kinetheodolite! He also contributed observations to the world-wide Moonwatch programme and in the results of 1969, only one of the 89 observers had lower residuals.

The other great interest in Stan's astronomical life was computing, especially comet orbits. He gained international recognition for the scope and accuracy of this work. He started computing comet orbits and ephemerides for the Computing Section in 1962 and continued until his last year. In 1985 he became Assistant Director of the Computing Section, a post he held until his death. The results of his work can be seen in the *Handbooks* for 1963-1998 and in catalogues and circulars. He started his computing work using log-tables, and moved through mechanical calculators, programmable electronic calculators to personal computers, teaching himself the techniques and programming skills as well as keeping abreast of the continual improvements in astronomical computational methods and sources of astronomical data. He was noted for his attention to detail and the accuracy of his results. Stan wrote programs for comet ephemerides and astrometric reduction programs and made them freely available to others.

His interest in comets extended to their observation and he used a 250mm reflector as well as the 125mm Apogee Moonwatch telescope for visual observations. When in 1968 M. P. Candy resigned the Directorship of the Comet Section to take up a post at Perth Observatory, Western Australia, Stan Milbourn was appointed to succeed him. His accession was soon to be marked by one of the most visible comets of the century, comet Bennett, discovered in 1969 December. There followed the much-maligned comet Kohoutek in 1973-74 and the spectacular comet West in 1976. In 1973 Milbourn started the Comet Section Bulletin, initially under the editorship of A. P. Stephens. Twenty-six Bulletins were issued between 1973 and 1987. In 1976 M. J. Hendrie was appointed Deputy Director of the Section becoming Director in 1977 on Stan's resignation from the post: this allowed Stan to devote more time to his computing.

Almost since their inception by G. Merton in 1923, the BAA *Circulars* had been edited by the Director of the Comet Section as most of the reports in them were about the discovery of new comets or the return of periodic comets. Before personal computers, it was an onerous task to compute a provisional orbit for a new comet quickly, and then write, have printed and distribute the *Circulars* to the many subscribers. After relinquishing the Directorship of the Comet Section, Stan readily agreed to continue to deal with computing matters within the Section and to continue as Editor of the *Circulars* which Council decided to make a separate appointment outside the Section. The rate of discovery of comets and the wider range of other objects now within the reach of members had increased greatly over the years. Stan had edited the *Circulars* for 18 years when Don Miles took them on in 1986.

Stan was very helpful to *The Astronomer*

Stan Milbourn in front of the Hewitt Satellite Tracking Camera, taken during a conference at the Earth Satellite Research Unit, Aston University, Birmingham (1980).

during its early years when the small membership could not afford a subscription to the Central Bureau of Astronomical Telegrams. He often acted as a go-between, passing information on discoveries and observations both ways.

He observed total eclipses of the Sun in Kenya (1980) and Java (1983) and another year toured the great observatories in the western USA. In 1980 Stan was awarded the Association's Merlin Medal and Gift for his computing work and Minor Planet 3699 Milboum was named in his honour. He was a Fellow of the Royal Astronomical Society since 1959. He served as an ordinary member of the BAA Council and for many years attended most of the London meetings of the Association. After a meeting Stan Milboum could be found puffing his pipe and conversing with a steady stream of members who wished to benefit from his experience and knowledge. He had a quiet manner but was always approachable and gave freely of his time to help others pursue their particular interests. As one who worked closely with him for many years I can confirm what many have told me, that he was an utterly reliable colleague and a good friend. He will be sadly missed. His wife Eileen survives him and to her we offer our sincere condolences.

I would like to acknowledge the assistance of those who have provided or checked facts for this obituary, especially Guy Hurst, Howard Miles, Rod Salisbury, Gordon Taylor and Eileen Milboum. My thanks go to them all.

Michael J. Hendrie

Stan in Java, waiting for the start of the 1983 June total solar eclipse. *Photo: Rod Salisbury.*

Reference

1 Milboum S. W., 'Artificial Satellites - on obtaining the sub-satellite point', *J. Brit. Astron. ASSOC*, 75(4), 231 (1965)