Obituary

Brian Geoffrey Marsden (1937–2010)

With the death of Brian Marsden on 2010 November 18, amateur astronomy has lost one of its key long-time supporters. Brian’s professional astronomy colleagues will also miss someone who not only excelled in the investigation of the orbits of comets and minor planets, but, in addition, effectively policed potential discoveries and their validity, mainly through his work at the Central Bureau for Astronomical Telemetry. However, most of all, Brian was a true friend to so many observers whose paths he crossed, particularly as he was often willing to spend a considerable time offering support and advice, despite his many busy duties.

Brian Geoffrey Marsden was a British astronomer who was born in Cambridge, England on 1937 August 5. His mother introduced him to the study of astronomy, when, during his first week in primary school in 1942, he returned home and sat with her watching a solar eclipse and was fascinated by how such events could be predicted in advance. At the age of 11 he entered the Perse School in Cambridge where he was already developing primitive methods for calculating the positions of the planets. He was elected as a member of the Association on 1953 November 25. During his time as an undergraduate at New College, University of Oxford he persuaded the BAA to lend him a mechanical calculating machine, allowing him to increase his computational productivity. By the time he received his undergraduate degree, in mathematics, he had already developed something of an international reputation for the computation of orbits of comets, including new discoveries.

Brian also participated in summer student courses at Herstmonceux. His interests were demonstrated during his attendance at various meetings of the Association when he often responded during after-talk questions and answers about a variety of mathematical issues. He formed close links with the Computing Section of the BAA and took an early interest in Jupiter’s satellites. In the Journal for 1955 July there is a table of mutual occultations of the satellites prepared by the 18 year old Brian Marsden and, later, predictions of close planetary conjunctions, all demonstrating mathematical skills as well as his support for the Computing Section. Brian also looked into the more unusual calculations in astronomy as is demonstrated by his BAA paper of 1956 on ‘Transits’, when aside from those of Mercury and Venus crossing the face of the Sun as seen from Earth, he discussed when transits could be seen from other planets. His paper on ‘Interior contacts of Jupiter’s satellite phenomena’ earned special recognition.

In recognition of his many achievements and support of the Association, Brian was awarded the Merlin Medal and Gift in 1965 and subsequently, in 1979, the Association’s most senior award, the Walter Goodacre Medal. Sir Richard Wollfrey (Astronomer Royal, 1956–1971) suggested that Brian attend Yale University and he took up work at the observatory there and was also enrolled as a Yale graduate student. Whilst there he used computer facilities to work out the orbits of comets and completed his PhD degree with a thesis on ‘The motions of the Galilean satellites of Jupiter’. At the invitation of director Fred Whipple, he joined the staff of the Smithsonian Astrophysical Observatory in Cambridge (MA) in 1965. During this period he developed a program which included non-gravitational effects to refine predictions for the paths of comets.

At this time the Central Bureau for Astronomical Telegrams (CBAT) moved from Copenhagen and Brian succeeded Dr Owen Gingerich as CBAT director in 1968. Daniel Green later became a student assistant and eventually took over as director in 2000. Brian was particularly proud of his studies of Comet Swift–Tuttle, associated with the Perseids, which had been discovered in 1862 and was expected to return in the early 1980s. However, when it failed to appear, he linked it to Kegler’s comet of 1737, which led to a revised prediction that it would return later in 1992, which turned out to be correct. In fact, Brian had offered two new perihelion dates of November 25 and December 11; the latter assumed there were negligible non-gravitational effects, which might be the case if 109P/Swift–Tuttle’s nucleus was massive. As it turned out the 1992 December 11 prediction was just one day early!

Throughout the 1970s the Minor Planet Center, also based in Cambridge, was handling an ever-increasing volume of measurements of asteroidal positions and computing their orbits. Dr Paul Herget was due to retire in 1978, and so the IAU asked Brian to take over directorship of this area as well as CBAT. He initially worked with Conrad Bardwell who, on retirement in 1989, was replaced by Gareth Williams who became associate director.

The development, in 1996, of the Internet ‘Near-Earth Object Confirmation Page’ drew attention to candidates for Earth-Approaching objects but controversy followed in 1998 when Brian pointed out that 1997 XF11 might collide with the earth in 2040. Subsequent observations in 1990 ruled out this possibility, leading some to believe an error had been made, but in reality it was simply a lack of initial measurements over a suitable time span which had led to the debate.

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for his invaluable help in checking the facts
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reference, the literature, and often right down
to the original date.

One major false alarm was a report from a
professional astronomer of a supernova in Messier 31 in November of 1987. This had created a degree of chaos at CBAT during one morning when Brian was away atten-
ting a meeting and on his return he ques-
tioned why an amateur astronomer had not
seen it in such a popular object! The query
was relayed to the UK where an image by
Denis Buczynski showed no object at the
reported position and the world-wide alert
was cancelled.

The support Brian Marsden gave the
amateur astronomy community continued
to be very evident with personal letters
written to discoverers such as John Hosty
for his nova discovery in 1977. He also made
occasional visits to see these observers such
as in the case of George Alcock whom he
called to see in 1959 when living close by
in Cambridge. He again visited George in 1993,
accompanied by his wife Nancy, and they
were both enthralled by drawings of non-
astronomical objects such as birds, cathe-
drals and clouds.

Brian made a point of attending meetings in
the UK as part of international tours. This included his attendance at the 1989
Annual Meeting of The Astronomer in Basingstoke where he gave two talks, one
on his recent discovery of a newly recog-
nised sungrazer group of comets, now
known as the ‘Marsden Group’, and later
in the day, guidance on priority observing areas which he recommended amateur as-
tronomers should follow to provide valu-
able science. Luckily record-
ings of these talks and an
interview he gave at the 1989
meeting were made and
watching these again even
now is truly inspirational.

At a meeting of IAU Commission 6 in Manches-
ter on 2000 August 15, Brian G. Marsden an-
nounced his retirement, ef-
fective the next day, as Di-
rector of the Central Bureau.
His place was taken by
Daniel W. E. Green. In rec-
ognition of his long service,
he was given the honorary
title of Director Emeritus.

Sadly, four months later, on
2000 Dec 15, George Alcock died, aged 88. I was
very conscious of George’s
love of Peterborough Cathed-
ral which was near to his
home in Yaxley and specu-
lated that it might be possi-
ble to have a plaque erected
in his honour within the ca-
thedral. However, at the time I had not ap-
preciated the complexity of the task. David
Tucker came to the rescue and prepared
draft plans for discussion at BAA Council
meetings and this process continued through
my period as President of the Association.

Brian Marsden asked to be kept in touch
touch throughout the negotiations with the vari-
ous committees of the Cathedral.

A joint meeting between the Royal
Astronomical Society and the Association at
the Open University in Milton Keynes
took place on 2003 May 10 with the theme of
comet, meteor and meteorites. Brian had agreed to attend and gave the first
‘George Alcock Memorial Lecture’. Also
present were John Alcock, brother of the
late George, and Kay Williams, author of
the Alcock biography Under an English
Heaven. Brian was accompanied by his wife
Nancy and I reviewed the drawings of
the plaque as they were approaching the final
stage with our various guests. It was a par-
ticularly memorable moment in my Presi-
dency when I called John Alcock. Kay
Williams and Brian Marsden on to the stage
before the Memorial Lecture was given.

Further controversy occurred with regard
to Pluto. In 1992 colleagues claimed the first
discovery of what Brian referred to as the
‘transneptunian objects’. He pointed out
that actually Pluto was the first and subse-
quently other objects were found in similar
orbits, thus suggesting they were all part of
a group and that Pluto should be ‘demoted’
from its position as a major planet. This
idea gained momentum when in 2005 Eris
was found to be of a similar size to Pluto.

With the discovery of Makemake and
Haumea, at the IAU meeting in Prague in
2006 it was decided to designate Pluto as
part of a new group of ‘dwarf planets’. At
the end of his career, Brian noted that Pluto
was retired as a planet at the same time he
formally retired as an astronomer.

In truth people like Brian never retire
and though suffering from leukaemia and
later pneumonia and battling on with the
associated intensive treatment, he still man-
aged to work most days helping the Minor
Planet Center. Until a week or so before his
death he was issuing circulars about comets
and his favourite transneptunian objects.
We were in touch in the final week of his
life when he helped with provision of in-
formation on behalf of The Astronomer to
NASA ADS.

Brian will be sorely missed by so many
astronomers around the world. He once
passed to me a private document describ-
ing a typical week in his duties relating to
astronomy which I still treasure. I was hum-
bled by even considering that what I re-
garded as a busy week could ever compare
with the extraordinary volume of events and
queries he was able to handle.

Brian leaves his wife Nancy Lou Zissell,
whom he married on 1964 December 26,
his daughter Cynthia, who is now married
to Gareth Williams, and son Jonathan, of
San Mateo, California. A sister, Sylvia
Custerson, continues to reside in Cambridge,
England.

I would like to thank Martin Mobberley
for his invaluable help in checking the facts
in this obituary.

Guy M. Hurst

J. Br. Astron. Assoc. 121, 1, 2011