Obituary

ROBERT D'ESCOURT ATKINSON: 1898-1982

Robert d'Escourt Atkinson, President of the Association for the Sessions 1960-61 and 1961-62, died on 1982 October 28 at Bloomington, Indiana, aged 84. Born near Rhayader in Wales on 1898 April 11, he was educated at Manchester Grammar School from which, in 1917, he won a scholarship to Oxford. This was the period of the First World War and Atkinson served for two years in the Royal Field Artillery in Italy; only after this did he begin his studies at Oxford where he read physics, graduating in 1922 with first-class honours. He remained at Oxford for the next four years as research fellow and demonstrator at the Clarendon Laboratory, then in 1926 he went on a Rockefeller Travelling Fellowship to Gottingen where, in 1928, he obtained his D.Phil. He then worked for a time at the Technische Hochschule in Berlin before going to New Jersey in the United States, first as an Assistant Professor and then as Associate Professor at Rutgers University. It was during this period of his career that Atkinson was concerned with nuclear physics. With F. J. Houtermans in Berlin he pioneered the theory of nuclear fusion and he applied it to the problem of the generation of stellar energy. He also used it in his discussion of the interior of stars and came to important conclusions about the reasons for the cosmic abundances of the elements.

In 1937 Atkinson became Chief Assistant at the Royal Observatory at Greenwich but from 1940 to 1943, during

A snapshot of Dr Atkinson *(right)* with Mr and Mrs Andrew Murray taken on a recent visit to Britain.

the Second World War, he worked for the Admiralty on degaussing problems and was later posted to Washington as Scientific Liaison Officer on this work. In 1944, at Edwin Hubble's request, Atkinson moved to the US Army Ballistics Research Laboratory in Maryland. He returned to Greenwich in 1946 and became involved with the removal from Greenwich to Herstmonceux.

In the post-war years Atkinson became intimately concerned with the precise measurement of star positions and in all aspects of positional and geodetic astronomy. At the total solar eclipse of 1948 he demonstrated with success the value of cinematograph film as a permanent record of the relative positions of the Sun and Moon for both astronomical and geodetic purposes, if taken from a position just outside the zone of totality. In 1952 he designed an astronomical clock for York Minster, which was built in the RGO workshops and unveiled in 1955 by the Duke of Edinburgh as a memorial to British Commonwealth and Allied airmen who had flown from English airfields during the Second World War. He also later designed a novel sundial for the University of Indiana at Bloomington in the United States. Atkinson retired from Greenwich in 1964, but his life was still an active one astronomically. He became visiting professor at the University of Indiana and busied himself in the fields of general relativity and precision astronomy. It was the latter subject that formed the nub of his two Presidential Addresses to the Association in 1961 and 1962. In 1973 he became Adjunct Professor and in 1979 Professor Emeritus. He was honoured also by Gottingen University in 1978 with a diploma "in recognition of his pioneering work on atomic synthesis in stellar interiors".

Though Atkinson had to wait a long time for recognition of his work on the basic sources of stellar radiation—he was awarded the Eddington Medal of the Royal Astronomical Society in 1960—his contributions to positional astronomy, hall-marked by a meticulous attention to detailed precision, were immediately recognized. His critical attitude, even to the work of colleagues, stimulated new achievements. He was a founder member of the (now Royal) Institute of Navigation, and proposed an interesting method of navigation which involved comparison of a zenith photograph with a star chart; he also designed a twilight-setting star globe which is still used. A memorial to this precision work of his was made in 1977 when the minor planet 1827 was named "Atkinson".

[Editorial note: This obituary has been prepared with assistance from Mr Andrew Murray and Dr Donald Sadler, while use has also been made of the Obituary Notice which appeared in *The Times* on Friday 1982 November 12 .]