



*SG Hooker*

## Stanley George Hooker

1907–1984

By Gerhard Neumann

Sir Stanley George Hooker, who was recognized throughout the world as a leader in the field of aircraft gas turbine engineering, died of cancer on May 24, 1984, in Bristol, England. Most recently, Hooker was a consultant to Rolls Royce, Ltd., where he began his career in aviation.

During that career, Sir Stanley was known as one of the leading British authorities in the jet engine field. He engineered a long line of outstanding aircraft gas turbines and played a key role in developing the British aviation industry and bringing it to a position of world prominence. No account of the growth of the industry would be complete or accurate without paying tribute to his accomplishments.

Stanley George Hooker was born in 1907 at Sheerness, Kent, England. In 1931 he graduated with first-class honors in mathematics from the Imperial College of Science and Technology. Initially, he worked on torpedo propulsion; later, on anti-aircraft rockets, which were used extensively in World War II. In 1938 he became head of Rolls Royce's Supercharger and Engine Performance Section in Derby. It was in this role that he made significant contributions to the development of the renowned Merlin engine that powered Britain's Spitfire and Mustang fighters as well as its Lancaster bombers.

The advent of the jet age saw Hooker at the forefront of

the pioneering technological efforts that brought revolutionary progress to the field of aircraft propulsion. In 1940 he met Sir Frank Whittle and became interested in the work Whittle was doing on jet propulsion. Sir Stanley followed through on that interest by introducing Whittle to Lord Hives, then managing director of Rolls Royce. The result was Rolls Royce's entry into the jet engine field and the initiation of the key role in the industry that the company occupies to this day. Hooker was appointed chief engineer of the Barnoldswick Division of Rolls Royce and charged with developing the Whittle W2B jet engine.

Ronald Smelt, who conducted the flight tests of the E 28/39 and F 9/40 aircraft that used the first Whittle jet engines, credits Hooker as being the engineer who "industrialized" Whittle's concepts and thus built up the aircraft turbine industry in England. Smelt was also in charge of the 1946 speed runs of the Meteor aircraft powered by two Rolls Royce Derwent V engines that established a world speed record of 603 miles per hour.

In 1950 Sir Stanley was appointed chief engineer of Bristol Aero-Engines, Ltd., and placed in charge of the design and development of the Proteus turboprop engine for the Bristol Britannia civil airliner and the Olympus jet engine for the Royal Air Force's Vulcan bomber. In 1954 he was named director of the Bristol Aeroplane Co., Ltd.; in 1959 he became technical director of Bristol-Siddeley Engines, Ltd., which was formed by merging Bristol Aero-Engines with Armstrong Siddeley Motors.

It was during this period that he led the design and development effort for two of the most notable engines in aviation history: the Orpheus turbojet that was used extensively by NATO in Fiat G.91 strike fighters and the Pegasus vertical takeoff engine that powers Harrier aircraft. When Bristol-Siddeley merged with Rolls Royce in 1966, Stanley Hooker was named technical director of the Bristol Engine Division.

Sir Stanley was recognized for his achievements by his election to several of the world's more prestigious technical societies.

He became a fellow of the Royal Society in 1962; he later served as its vice-president and a member of the council from 1965 to 1967. Stanley Hooker became a fellow of the American Association for the Advancement of Science in 1965 and was chosen as an honorary fellow of the Society of Engineers in 1968. Hooker was further recognized for his contributions to the British aviation industry with his appointment as Officer of the British Empire and Commander of the British Empire in 1946 and 1964, respectively. In 1981 Sir Stanley George Hooker was honored by his peers with selection as a foreign associate of the National Academy of Engineering.

Professional recognition for Sir Stanley also came in the form of several awards. The Royal Aeronautical Society awarded him the British Silver Medal (1955); the British Gold Medal (1961); and their highest award, the Gold Medal of the Royal Aeronautical Society (1967). He also received the James Clayton Prize of the Institution of Mechanical Engineers (1967) and the Churchill Gold Medal from the Society of Engineers (1968).

Sir Stanley won patents for many key technical features that became standard in high-performance jet engines. He also authored almost fifty publications, many of them on supersonic operations.

The record speaks for itself. Sir Stanley Hooker was a giant in the field of aircraft jet propulsion. In my years of running General Electric's jet engine operations, his name stood out in my mind as one of the leading forces that helped shape Rolls Royce into one of our most powerful competitors. At the same time, he held a position of honor and respect in all of our minds for the dignity and integrity with which he conducted his business affairs.

One could be proud to be part of a profession and industry that included Sir Stanley Hooker. That may be his greatest contribution, for I know that he inspired all those with whom he came into contact to work for progress and the betterment of mankind through aviation.