



*Edward H. Heinemann*

## Edward H. Heinemann

1908-1991

Written By Donald Douglas, Jr., And Harry Gann

Submitted By The Nae Home Secretary

THE DISTINGUISHED CAREER of Edward H. Heinemann has provided significant and lasting contributions to the advancement of aircraft and associated equipment design. A high school graduate who became a self-taught engineer, Mr. Heinemann started with the Douglas Aircraft Company in 1926. In 1927, at the age of nineteen, he became the chief draftsman for the International Aircraft Company. In 1928 he joined the Moreland Aircraft Company as the assistant chief engineer, later advancing to the position of chief engineer. In September 1930, he moved to the Northrop Aviation Corporation of Burbank, California. When a new Northrop Corporation was formed in 1932, which was a part of the Douglas Aircraft Company holdings, he became affiliated with that organization, rising to the position of chief engineer in 1936 at the age of twenty-seven. In 1958 he was appointed vice-president, military aircraft engineering. He left the Douglas organization in 1960 to become executive vice-president of Guidance Technology, Inc. In 1962 he joined General Dynamics as corporate vice-president of engineering, retiring from that position in 1973.

More than 20,000 aircraft have been built from Edward Heinemann's designs. He designed the first carrier-based aircraft (the F4D Skyray) to set the world's absolute speed record, for which he received the prestigious Robert J. Collier Trophy in 1954. His D-558-II Skyrocket was the first aircraft to exceed

Mach 2, or twice the speed of sound. This line of aircraft was especially cost-effective in the research programs that contributed to the progress of technology after World War II, pushing aircraft through the so-called sound barrier.

He is especially well known for his line of attack aircraft, beginning with the legendary SBD Dauntless. This dive bomber sank more enemy tonnage in the war in the Pacific than any other weapon and was exceptionally effective at the Battle of Midway, where four aircraft carriers were sent to the bottom of the ocean, thus blunting the eastern drive of the Japanese. The AD Skyraiders, the A3D Skywarriors, and the diminutive A4D Skyhawk were the first-line equipment in the U.S. Navy and Marine Corps for forty-five years—exemplary of Edward Heinemann's intuition of future requirements and his ability to design aircraft to meet these requirements. For example Mr. Heinemann anticipated that the Skywarrior, a carry-based heavy attack bomber, would need to work off a smaller aircraft carrier than was originally intended, and he designed the aircraft to meet this challenge.

The A-4 Skyhawk is probably his best-known aircraft today and the culmination of his experience in dealing with the special requirements of ship-based aircraft. Also supplied in an advanced trainer version, the Skyhawk has been flown by every current tactical jet fixed-wing pilot in the U.S. Navy and Marine Corps.

Almost 7,500 A-20/DB-7 and 2,500 A-26 twin-engine attack bombers of his design were built for the Allied forces of World War II. The A-20/DB-7s were available to the Allied forces at their entry into World War II and greatly contributed to the holding of the Axis powers before the entry of the United States into the war. Many of the A-26s were converted to high-speed commercial business transports after World War II, whereas the military versions continued to be used in the Vietnam War.

Edward H. Heinemann's ability to design lightweight, innovative, cost-effective aircraft without sacrificing capability has enabled U.S. military forces to more adequately perform their required missions. As a result of the superior basic design, these aircraft have been able to operate over long periods of time and

in a diversity of missions, and in some cases, exceeding the life of the aircraft designed to succeed them. Mr. Heinemann also produced associated aircraft equipment, such as inflight refueling stores, ejection seats, streamlined stores, bombracks, and special ordnance, which have become standard items on other manufacturers' aircraft.

Mr. Heinemann's list of awards is long and distinguished. It includes—in addition to the Robert J. Collier Trophy—the National Medal of Science, honorary fellow in the Royal Aeronautical Society, the Guggenheim Medal, the United States Navy Distinguished Public Service Award, and many others. He is also enshrined in several aviation halls of fame established throughout the United States.

Edward Heinemann's illustrious career ended when he died on November 26, 1991, at the age of eighty-three. He will be long remembered for the number of aircraft designed by his team and the crews that operated them.