

MEDALIST FOR 1979

For the development of highly efficient aircraft engines for commercial and military purposes, including creation of one of the first successful turbofan engines which contributed significantly to the efficiency and success of the airline industry.



GERHARD NEUMANN

Back in 1938, a young German aircraft maintenance specialist went to China on a job involving maintenance of German-built planes in the Chinese Nationalist Air Force.

Four years later, after Pearl Harbor, he joined the Flying Tigers where he won the reputation as a miracle worker for his ability to keep the Tigers' P-40's flying in spite of battle damage and parts shortages. The U.S. Office of Strategic Services transferred him to its own ranks after he rebuilt a wrecked Japanese Zero, and he spent the rest of the war ranging all over China, mostly behind Japanese lines, obtaining information on Japanese military equipment.

In gratitude, the head of OSS asked Congress to reward him—and the result was a special act which made Gerhard Neumann an American citizen. He paid his thanks to his adopted nation by going to work for General Electric after the war, starting a 30-year career in engine design. Among his contributions was the first variable stator which made possible a high compression ratio combined with light weight and a small frontal area. These features, achieved using seven stages of variable stators, resulted in the famed J-79 jet engine which first made possible a Mach 2 aircraft—an engine that powered the F-104, F-4 and B-58, and is still in production after 25 years with GE building more than 14,000. It was an achievement that made him co-recipient of the 1958 Collier Trophy.

Equally important, however, was Neumann's development of an aft fan version of the J-79, which he turned out in eight months. It became known as the CJ-805 which powered the Convair 990; as the first bypass ratio engine it revolutionized the entire engine industry by introducing a means of achieving greater thrust combined with more fuel efficiency.

Neumann retired as head of GE's Flight Propulsion Group in 1979, after 32 years of service. He remained active in retirement, until he developed leukemia and died on November 2, 1997.