GEORGE K. MUELLNER
1943–2019
Elected in 2015
“For leadership in the research, design, and development of advanced air and space vehicles.”
ELLEN M. PAWLIKOWSKI

GEORGE KENNETH MUELLNER was an elite combat pilot, test pilot, technologist, and program manager who played a pivotal role in US Air Force modernization as a military leader and Boeing executive. He was a distinguished leader, respected intellect, and philanthropist who touched many lives that were greatly enriched over his long and very productive career. He passed away at age 75 on February 11, 2019, in Newport Beach, California.

He was born to George and Virginia Muellner on July 10, 1943, in Chicago. After graduating in 1967 from the University of Illinois in Chicago with a BS degree in aeronautical and astronautical engineering he entered the US Air Force through ROTC and began an illustrious career as a fighter pilot.

He flew the F-4 in Vietnam, and, when he was shot down on a low-level bombing mission, kept North Vietnamese forces at bay with a handgun until a rescue helicopter lifted him to safety. Later, as a Boeing executive, he would manage a program to upgrade the Vietnam-era rescue radio to add GPS coordinates that would help retrieve downed airmen. He flew 690 combat missions in Southeast Asia in the F-4 and another 50 as commander on the E-8 Joint Stars deployed to Operation Desert Storm (1990–91).
He also distinguished himself as a test pilot on the F-15 and F-16 and in numerous classified aircraft programs. In the mid-1980s he was assigned to an elite unit evaluating secretly acquired Soviet fighters and was commander of the 6513th Test Squadron and 35th Tactical Fighter Wing at Bitburg AB in Germany.

As a senior leader at Air Combat Command Headquarters, General Muellner led the formulation of the requirements for a new strike fighter aircraft and was later designated director and program executive officer of the Joint Advanced Strike Technology Program, established to harmonize Air Force, Navy, and Marine Corps requirements for a new combat aircraft that would be used by all three services.

He was the foundational visionary for the Joint Strike Fighter (JSF) aircraft, a high-performance 5th-generation stealth fighter built of composite materials. He assembled the Joint Service/International Program and led government and industry teams responsible for 87 technology programs leading to the JSF program. Under his leadership, the JSF program created mature technologies, developed detailed requirements, and demonstrated concepts for an affordable next-generation joint strike weapon system. The program vision included not only the conventional takeoff and landing variants of JSF but also the vertical takeoff and landing Marine Corps variant.

Unique to the JSF program was the concept of more than 75 percent commonality among the three service variants, a fundamental production strategy to control cost by not having three different developmental programs, each with unique designs and nonrecurring engineering costs. During the early stages of the JSF program he led the competitive prototype phase, which ultimately led to JSF being the largest defense acquisition program in history. This weapon system evolved into the F-35 fighter that is in service for USAF, USN, USMC, and numerous allied military services.

Lt. General Muellner’s final USAF assignment was as principal deputy for the Office of Assistant Secretary to the Air Force for Acquisition, formulating requirements and funding for the 21st Century US Air Force. He retired in 1998 but
his influence on the Air Force is visible in the network-centric architecture that defines aircraft such as the E-8C Joint Stars and F-35 Joint Strike Fighter.

Over his 3 decades of military service he received both the Defense and Air Force Distinguished Service Medals, Legion of Merit, Distinguished Flying Cross (with three oak leaf clusters), Purple Heart, Meritorious Service Medal (with three oak leaf clusters), Air Medal (with 27 oak leaf clusters), and Air Force Commendation Medal (with three oak leaf clusters).

During his active service, he found time for further education and earned an MS, also in aeronautical and astronautical engineering, from the University of Southern California (1974); MS in electrical engineering from California State University, Northridge (1979); and MBA from Auburn University (1983). In 1998 he joined the Boeing Company, where he was president of the advanced research and development unit, Phantom Works, and vice president of Air Force programs. As head of Phantom Works (until 2003), he played a key role in transforming the X-plane from attempting a single technological breakthrough to demonstrating multiple complementary advances. These included the X-45 unmanned combat air vehicle, the X-37 space maneuver vehicle, the NASA X-48 blended wing body vehicle, and Orbital Express, a DARPA/USAF satellite program that demonstrated autonomous operations and on-orbit refueling and LRU replacement.

The scope of George’s influence on modern airpower is only partially understood. Although Boeing unveiled the secret Bird of Prey stealth demonstrator he managed in 2002, the technologies he advanced as director of classified Air Force programs remain closely guarded secrets. He retired from Boeing in 2008 as president of Advanced Systems for the Integrated Defense Systems business unit.

Beyond his impressive professional career, he was very active in a number of “extracurricular” activities. For the Air Force Association (AFA), he was a member of its Aerospace Education Council, national director and vice chair of the board for Aerospace Education, and chair of the AFA board. During his term as chair (2012–14), he expanded the Cyber
Patriot program, which attracts thousands of high school students to STEM careers. In addition, he and his wife established AFA’s George and Vicki Muellner Foundation Scholarship, which annually awards $5,000 scholarships to two college students in the Arnold Air Society and Silver Wings. He oversaw the establishment of a Memorandum of Understanding with the Air Force to operate AFA’s Wounded Airman Program. And he built a trusted relationship with Congress, making many personal visits with legislators and their staff to articulate the national importance of US airpower.

George was also a longtime contributor to the Air Force Scientific Advisory Board, from 1998 throughout the rest of his life, holding various positions and serving on the executive committee from 2009 until his death. He participated in 17 studies covering a wide range of critical and operational topics, culminating in his chairmanship in 2018 of the secretary of the Air Force’s pinnacle study “Maintaining Technology Superiority for the United States Air Force.”

He was an active member of the American Institute of Aeronautics and Astronautics, serving in a number of leadership positions—including as president—and was recognized as an honorary fellow.


For his technical contributions, he received many non-military honors. He was elected a fellow of the Royal Aeronautical Society and the NAE and, among his numerous awards, received the AFA’s Theodore von Karman Award (1997), Clarence L. (Kelly) Johnson Award (1998) from the
Engineers Council, Curtis Sword Award (1998) for “outstanding contributions in promoting international S&E” from Aviation Week and Space Technology, and George Lubin Award for Low Observables (2003) from the Society for the Advancement of Materials and Process Engineering.

The greatest of George Muellner’s achievements lies in the hundreds of men and women he mentored and guided throughout his career. He was the fighter pilot who volunteered to fly with new pilots on their first combat mission. He mentored young officers and guided midgrade officers, helping them make the transition to senior leadership. Several NAE members identify him as their mentor and guide, including Major General Paul Nielsen, Natalie Crawford, John Tracy, Heidi Shyu, and the author of this tribute. George Muellner’s legacy will live on in their works and in those of many others who called him friend.

He is survived by his wife Vicki Ann (née Edwards).