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THE MUSEUM OF FLIGHT MAGAZINE



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# DENNIS O'DONOGHUE

RECIPIENT IN THE FLYING CATEGORY

**TWO-TIME BOEING VICE PRESIDENT DENNIS O'DONOGHUE** embodies the definition of servant leadership as a previous Marine Corps pilot, NASA and Boeing test pilot, and his impact on flight test engineering and corporate leadership has redefined the aerospace industry.

The oldest of seven siblings, O'Donoghue grew up on a farm outside of Pittsburgh with the freedom to explore both nature and his own imagination. His father, Thomas O'Donoghue, emigrated from Ireland to the United States with little formal education, even less money, but a wealth of ambition. He eventually established his own farm, construction company and a successful restaurant business. His father's strong work ethic would come to have a profound impact on O'Donoghue's own career. From a young age, O'Donoghue remembers his captivation with flying. He recalls growing up with the excitement of the space race and was 14 when his uncle Tony took him on his first flight. With goals of earning a degree in engineering and becoming a test pilot, he successfully pursued an appointment to the United States Naval Academy. O'Donoghue attributes much of his success to the Academy, which taught him the importance of prioritization, confidence in one's abilities, trust, communication and discipline; and, he says with a smile, "the ability to rest under virtually any circumstances, acquired by sleeping under the deck of an aircraft carrier while an F-4 Phantom lands."

After graduating with a mechanical engineering degree, O'Donoghue flew in the Marine Corps for fourteen years, serving as a fighter pilot and instructor pilot on many aircraft types including the AV-8 Harrier. He attended Navy Test Pilot School and gained extensive experience in vertical and short takeoff/landing aircraft as an AV-8B Harrier II test pilot. For his Master's thesis O'Donoghue created and demonstrated a voice-controlled avionics system for fighter aircraft; a similar system would end up in the Joint Strike Fighter (JSF) program and the F-35 Lightning II.

Ever interested in learning and research, O'Donoghue's ambition and curiosity led him to NASA and a career of experimental flight test and space support missions. He experienced some of the riskiest flying of his career during microgravity missions in a DC-9, developmental flights in the YAV-8B Harrier variable stability aircraft, and research flights in a Twin Otter to explore how airfoil icing affects stability and control of fixed-wing aircraft.

One day in 1996, O'Donoghue got a call from Boeing with an offer to be the chief test pilot for the X-32B, the Short Take-Off and Vertical Landing Concept Demonstrator aircraft of Boeing's Joint Strike Fighter program. Before accepting the position he researched the JSF program, but he wasn't sold. He was also offered opportunities testing Boeing Commercial Aircraft (BCA) jet transports. This offer produced a career-defining decision for O'Donoghue: signing on to a company with broad product offerings in both civilian and military markets. He accepted the BCA job and then was loaned to the Defense & Space side of the company for the X-32B development program, where he was deeply involved in its design and development and led the flight-testing.

Flight-testing endowed O'Donoghue with many priceless lessons. As he says in a list of 10 things he learned from his flight test career, "If a design engineer tells you that a failure scenario 'simply cannot happen,' assume that it will." A specific incident stands out in his memory. During a routine test flight of the X-32, a warning indicator light informed him that the wheel brakes had failed. However, this was not the only problem



COURTESY OF THE BOEING COMPANY

afflicting that flight. O'Donoghue had to land the plane with failing flight controls, a consequence of seemingly unrelated systems interactions. He landed successfully, overcoming a scenario that engineers said had a minuscule chance of occurring.

Following work on the X-32, O'Donoghue transitioned into BCA and was promoted to a leadership role as the deputy project pilot for the Sonic Cruiser and 787, and then as chief pilot of production flight test. In 2005, he left Boeing for a year to be the director and chief pilot for Eclipse Aviation. When he returned to BCA he became vice president of Flight Operations. In 2009, he was assigned the daunting task of integrating all laboratory and flight test activities in support of commercial airplanes, military aircraft and space programs, into one company-wide test organization which would become known as Boeing Test and Evaluation, now the largest and most diverse T&E organization in the industry. The effort required the realignment of over eight thousand pilots, engineers, technicians and mechanics located across 92 sites in the U.S. and around the world. When he retired in 2017 he was vice president and chief engineer for Boeing Defense, Space & Security, responsible for the functional leadership of 22,000 engineers.

O'Donoghue's success as a Boeing executive stems from a unique approach to leadership and desire to understand and leverage the identity, purpose, principles and culture of the organization he leads. He accepts that the leader at the top cannot possibly control everything and instead allows conditions for leadership to emerge at all levels of the organization. He views large organizations as complex living systems that, given proper stewardship, organically adapt to changing conditions and respond more quickly and effectively to sudden shifts and emergent needs. His strong belief in pushing decision-making down to the working level, while engendering a high level of trust and open dialogue at every level of the organization, are hallmarks of his leadership. His credo: "Being present in the moment is a key trait and quality of a good and effective leader."

O'Donoghue is a multifaceted individual, a confident leader across multiple settings and a role-model for corporate America. His dedication and transformative contributions to aerospace technology are the embodiment of a Pathfinder: an example for future pilots who aspire to accept responsibility for leadership in aviation.

HISTORIC LANDMARK



THE MUSEUM OF FLIGHT

## MUSEUM NEWS

# Red Barn Historic Landmark

BY LOUISA GAYLORD, DEVELOPMENT COMMUNICATIONS COORDINATOR

**THIS MARCH, THE WILLIAM E. BOEING RED BARN** earned a notable distinction: the Tukwila Landmarks Commission voted to add it to the list of official historic landmarks within the City of Tukwila. Originally built in 1909 as part of the Heath Shipyards along the Duwamish River, the Red Barn is one of the most iconic and recognizable buildings on the Museum's campus at Boeing Field. When the United States joined World War I in 1917, the newly-formed Boeing Company secured a contract for 50 Model C aircraft from the U.S. Navy. Over 300 workers set up shop to fill the order, and the Boeing Airplane Company took off. Although the Red Barn served as the Boeing Company's headquarters until 1929, it was nearly demolished in 1975. The Museum recognized the historic significance of the birthplace of the Boeing Company and had the intact building floated down the Duwamish River on a barge to its current location. The structure was restored in 1983 to its original splendor and became the first building on the Museum's campus. In 2003, the Red Barn was designated a historic aerospace site by the American Institute of Aeronautics and Astronautics. "The Red Barn is a chance to be imbued with the pioneering, entrepreneurial spirit of William Boeing," says Boeing Company Corporate Historian Mike Lombardi. "It's the starting point of an incredible, inspirational journey where you can sense the hopes and dreams of those first employees."

## ★ CELEBRATE INDEPENDENCE DAY ★

With a Tribute Gift—In Honor or in Memory of someone who helped preserve our freedom. **Online tribute gifts may be made at [museumofflight.org/Donate](https://museumofflight.org/Donate).** Checks may be sent to The Museum of Flight at 9404 E Marginal Way S, Seattle, WA 98108. For more information, please call Dana Flanegin at (206) 768-7134, Monday-Friday.



**GRADUATING SENIORS** of Raisbeck Aviation High School gathered for the dedication of "The Space Between," the corridor joining the school and the Aviation Pavilion that symbolizes the nexus of STEM education, aerospace and art. Artist Sherry Raisbeck was on-hand to unveil a new painting for the school, Orion's Cosmic Angel.

## UNSHAKEABLE GREAT GALLERY

**FOR FUTURE GENERATIONS**, by former executive director Howard Lovering, is full of unexpected stories about the Museum. Back in February 2001, a magnitude 6.8 Nisqually earthquake hit the Puget Sound region. Boeing Field experienced extensive damage from the quake that caused closures of the airport, runways and taxiways. The Museum, on the other hand, with its massive steel and glass Great Gallery, emerged unscathed from the quake. A staff member watching the Great Gallery during the quake saw all the aircraft swinging in unison, and some of the smaller aircraft continued to sway for a few minutes after the quake subsided. The exceptional engineering behind the Great Gallery ensured that the precious artifacts enclosed within it were undamaged by the disruption. This piece of behind-the-scenes Museum history—and many more!—is available exclusively in *For Future Generations*, available now in our store and online at [museumofflightstore.org](https://museumofflightstore.org).