

Jack Cress is technology instructor for the HAI and AAI courses at University of Southern California. He was a career helicopter pilot in the US Marine Corps, having flown nearly 4000 hours during his 24 years of military service, with international flying assignments in Vietnam, Beirut , Okinawa , South Korea , Philippines and other locations. The majority of his flying experience is in helicopters with the H-46/BV107 accounting for more than 3000 of the hours logged. The UH-1H/B205, UH-1N/B212, OH-58/B206, H-53/S65, AH-1/B209 and TH-55/H268 comprise his remaining helicopter time, while the C-130-/L180, TA-4, TF-9, T-34, OV-10A/D, BE24, AA-5B, C-150/2 and C-172 account for his fixed wing flying experience.

Jack's non-flying duties were predominantly maintenance oriented during the first half of his military career, in which he served in the areas of maintenance administration, quality assurance and maintenance control. He was also formally trained as a Maintenance Test Pilot in the H-46 and supported numerous squadron maintenance programs in the test piloting role. Other non-flying duties included that of NAVAIR Program Manager (H-46, C-130, OV-10), Depot Engineering and Quality Officer (several helicopters, AV-8B/C, F-4J/S, C-130) and IMA Maintenance Officer (UH-1N, AH-1T, CH-53E, KC-130F, CH-46E). He also was twice assigned to the US Navy's Aviation Safety School, where he initiated the course in Helicopter Aerodynamics and also taught elemental Structural Failure Analysis, in support of that institution's accident investigation and mishap prevention programs.

Jack's teaching experience also includes numerous courses for the International Center for Aviation Safety (ICAS), the International Center for Safety Education (ICSE), Sun Safety Institute, and several short courses/guest lectures with various units within the USAF, USN , USA , USMC, USCG, RSAF, SAAF, ADF and others. He has been teaching within USC's Helicopter Accident Investigation (HAI) course since 1979. He has also taught the Technology portion of the NTSB's Rotorcraft Course since 2008.

Jack has earned a BS in Aeronautical Engineering from the Ohio State University (1967), has completed course work for the MS in Aeronautical Engineering at the Naval Postgraduate School (1979) and earned the Program Manager credential from the Defense Systems Management College (1991).

For twelve years, Jack was employed as the Product Manager by Simula Safety Systems, Inc., Phoenix, AZ, where he has been closely involved in the development of crashworthy, energy absorbing and high strength seating systems for the RAH-66, UH-60, OH-6, EH101, CH-149, UH-1Y, AH-1Z, V-22, WAH/AH-64, C-17, EC145, MH-60K/R/S, H-46, H-47F/G, VH-71 and other evolving aircraft. His work at Simula involved helicopter cockpit air bags and armor systems, as well.

He is currently proprietor of Vortechs Analytics where he serves in investigational, instructional and consultancy roles relating to various domestic and international civil and military operators.