



ALICIA MOEN
SENIOR STAFF CONSULTANT

amoen@engsys.com

Ms. Moen is an aviation accident investigator at Engineering Systems, Inc. (ESi). She specializes in helicopter piloting and operations. She is also an expert in parachute operations. Ms. Moen served 14 years as an officer in the U.S. Army, including three tours as a combat helicopter pilot in the AH-64D as well as flight time in the Bell 206. She led multiple mission-critical response efforts, including aircraft search and rescue operations, joint multinational training exercises, and combat aviation operations. She has over 1,100 flight hours including combat, Pilot Night Vision System Forward Looking Infra-Red (FLIR), and Night Vision Goggle (NVG) time.

Ms. Moen also has significant civilian aviation experience. She is an FAA Rotary Wing Commercial and Instrument Pilot. She also has fixed wing experience in Cessna 172/182 as well as Piper Arrow/Camanche and PAC 750. Currently, Ms. Moen holds a commercial and instrument pilot FAA rating for rotary wing and a commercial rating for single-engine and multi-engine aircraft. She has experience as pilot for parachute operations. In addition to pilot expertise, she is a United States Parachute Association Accelerated Freefall Instructor and has 1,300 jumps (military and civilian).

As Squadron Executive Officer, Ms. Moen served as the Chief of Staff and second-in-command for 24 AH-64D Attack Helicopters and provided direct oversight of aircraft maintenance, flight operations, training, and risk assessments in accordance with Department of Defense, International Civil Aviation Organization (ICAO), and Federal Aviation Administration (FAA) regulations. Her titles included AH-64D Squadron Executive Officer, Division, Special Operations Unit Air Operations Officer, Initial Investigation Officer and Platoon and Company Commands. During her Army career, Ms. Moen earned certifications in Joint Air Firepower, High Altitude Mountain Environmental Training Strategy, Helicopter Overwater Survival, Modular Egress Systems, and qualifications in multiple small arms.

Ms. Moen possesses significant hands-on experience in aviation management and operations with emphasis in high-risk training management, complex problem-solving, and has participated in accident investigations involving aircraft and transportation. Her experiences include Aviation Operations Management and joint and multinational training. She is skilled at navigating complex regulatory and compliance requirements and has conducted risk assessments and audits of policies and procedures. Additionally, Ms. Moen has managed complex supply chain logistics in austere environments, aircraft movement via ship to over six countries, flying and operating aerial fires and missions under ICAO requirements, equipment maintenance, and aerial and personnel delivery.

Areas of Specialization

- Army and Department of Defense Operations
- Aviation Accident Investigations
- Forward Looking Infra-Red
- Helicopter Operations
- Helicopter Pilot Expertise
- Leadership
- Night Vision System (NVG) Operations
- Parachute Operations

January 2025

Education

Ph.D., Aviation, Liberty University, anticipated 2030
M.S., Administration in Leadership, Central Michigan University, 2016
B.A., Sociology, George Mason University, 2005

Certifications

AH-64D Rated Pilot
FAA Multi-Engine Airplane (Land) Commercial
FAA Rotary Wing Commercial – FAA Rotary Wing Instrument – FAA Single Engine Plane (Land) Commercial
Project Management Professional
United State Parachute Association Accelerated Freefall Instructor

Awards and Honors

Air Medal with “V” Device
Joint Meritorious Service Medal
Order of Saint Michael (Gold)

Positions Held

Engineering Systems, Inc. (ESi), Peachtree Corners, GA
Senior Staff Consultant, 2023-Present

Flying River LLC, Austin, TX
Independent Aviation Consultant, 2020-2023

Amazon LLC, Memphis, TN
Outbound Operations Manager, July 2019-February 2020

U.S. Army, 2005-2019

AH-64D Squadron Executive Officer, 2nd Squadron, 6th Cavalry Regiment, Wheeler Army Airfield, Hawaii, 2018-2019
UH-60M Battalion Operations Officer, 2nd Battalion, 25th Combat Aviation Brigade, 2017-2018
Division Air Operations Officer, 25th Infantry Division, 2016-2017
Air Operations Officer, Special Mission Unit, July 2014-2015
Aide-de-Camp RADL Colin Kilrain, Joint Special Operations Command, Fort Bragg, NC, January 2014-July 2014
Air Operations Officer, Special Mission Unit, 2012-January 2014
Commander, Headquarters and Headquarters Company, 1st Attack Reconnaissance Battalion, 82nd Combat Aviation Brigade, Fort Bragg, 2010-2012
Platoon Leader, B Co, 1st Attack Reconnaissance Battalion, 82nd Combat Aviation Brigade, Fort Bragg, NC, 2008-2010
Flight School Student, Fort Rucker, AL, 2006-2008
Platoon Leader, C Co. 122 Aviation Support Battalion, Fort Bragg, NC, 2005-2006

Continuing Education

Basic Rotorcraft Accident Investigation Course, Transportation Safety Institute, U.S. Department of Transportation
Legal and Regulatory Issues in Unmanned Systems, Embry Riddle

Publications

“Accuracy of Flight Parameters Calculated from Radar and Automated Dependent Surveillance-Broadcast (ADS-B) Data”, T.P. Jung, K.M. Greene, K.R. Thobe, M.K. Bauer, **A. Moen**, American Institute of Aeronautics and Astronautics, SciTech Forum, AIAA-2025-1623, 2025.

Sample Project Work

Accident investigator for Boeing AH-64E Apache attack helicopter accident involving analysis of flight controls, Pilot Night Vision System (PNVS), onboard data tracking systems, pilot actions, and regulations.