

Alicia Moen

Senior Staff Consultant



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, with multiple tours as a combat helicopter pilot in the AH-64D as well as extensive flight time in both helicopters and fixed-wing aircraft including 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 a 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 a 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, Battalion Operations 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. Her experience includes aviation operations management, 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.

Alicia Moen

Senior Staff Consultant

Email: amoen@engsys.com

Phone: 719-355-1506

ESI GA - Atlanta

430 Technology Parkway NW
Peachtree Corners, GA 30092

Education

PhD Student, Aviation,
Liberty University

MS, Administration in Leadership,
Central Michigan University, 2016

BA, Sociology,
George Mason University, 2005

Areas of Specialization

Army and Department of Defense
Operations

Aviation Accident Investigations

Forward Looking Infra-Red

Helicopter Operations

Helicopter Pilot Experience

Leadership

Night Vision System (NVG) -
Operations

Parachute Operations



Certifications

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

Positions Held

Engineering Systems, Inc., 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

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.



Alicia Moen
Senior Staff Consultant

Email: amoen@engsys.com
Phone: 719-335-1506

Continuing Education

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

Professional Affiliations

United Safety Helicopter Safety Team

- Member

Awards and Honors

- Air Medal with "V" Device
- Joint Meritorious Service Medal
- Order of Saint Michael (Bronze)