JAMES R. COOLEY, PH.D.

EDUCATION

Ph.D. University of North Dakota, Aerospace Sciences May 2023
Dissertation: "United States Coast Guard Aviation Safety Climate Assessment Instrument"

MS University of North Dakota, Aviation May 2019
Thesis: "United States Coast Guard Aviation Safety: Relationship Between the Safety Survey and the Extent of Hazard Reporting"

BS US Coast Guard Academy, Management May 2003

TEACHING EXPERIENCE

University of North Dakota, Grand Forks, ND August 2023 to Present
Assistant Professor (tenure-track), Aviation

- Issues in Aerospace – Aviation 501
- Statistics – Aviation 503
- Qualitative Research Methods – Aviation 505
- Advanced Quantitative Research Methods – Aviation 506
- Advanced Research Methods – Aviation 507
- Capstone, Aviation Master of Science – Aviation 595
- Human Error – Aviation 518
- Human Error – Aviation 350

Chief Pilot, CG Air Station Traverse City, MI June 2022 to May 2023

- Operations Department Head responsible for all aircrew training, upgrades, evaluations, and safety.
  - Oversaw daily flight schedules for training (and operational missions).
  - Monitored pilot performance and coached individual crew members to improve abilities.
- Chief Pilot & Ops planner for multi-mission unit. Leads 16 pilots, 55 aircrew, & 43 Auxiliary; responsible for training given:
  - Air support for CG, DOD, US Secret Service, state & local LE
  - 10,000 NM coastline
  - Extreme winter weather

University of North Dakota, Grand Forks, ND March 2022 to May 2022
Adjunct Instructor, Aviation

- Human Error – Aviation 350

- Undergraduate course averaging 30 students per semester, covering the following topics: human error impact, human theory, errors within complex systems, data use, checklists, and automation.
- Developed course material, projects, quizzes, exams, and homework.

Aviation Safety Manager, Washington, DC May 2019 to June 2022

- Aviation Mishap Analysis – primary instructor and curriculum developer for recurring sessions
  - Jointly taught alongside NTSB
  - 40-hour accident investigation course
  - 200+ Servicemen qualified to serve on prospective accident investigations
- Flight Safety Officer qualification course – developed entire curriculum
  - 80-hour training qualifying 120+ vetted/selected prospective Flight Safety Officers
    - Selected, trained, and mentored 75 officers annually
    - Human Factors, privileged safety data, aeromedical, aerodynamics, mishap analysis, reporting, safety culture

Flight Examiner & Instructor Pilot, Astoria, OR May 2014 to August 2017

- Evaluated all pilots on annual check rides
  - Standardization
  - Search & Rescue
  - Night Procedures and Night Vision Goggle
  - Instrument
- Adjudicated performance and recommended for upgrading to next qualification
  - Maintenance flights
  - Hoisting
  - Vertical Surface rescue
  - Inland SAR & confined area landings

Flight Safety Officer, Astoria, OR May 2014 to July 2016

Instructor in the following topics:

- Crew Resource Management
- Human Factors
- Mishap analysis
  - Flight data
  - HFACS taxonomy
- Operational hazards
- Safety culture assessment

Aircraft Commander, Clearwater, FL & Kodiak, AK April 2008 to July 2011

- Primary trainer to upgrading co-pilots & first pilots.

- Aerodynamics, engines, structures, helicopter transmissions
- Complex military avionics and dynamic operational procedures.

USCG Cutter HEALY, Underway in Arctic July 2003 to November 2004
Teacher & trainer

- Music Theory:
  - Self-initiated multi-session class to active duty crew (~100) & scientists (~45) covering fundamentals, physics of sound, melody, harmony, classical rules, and jazz music theory.
  - Developed course material, arranged classroom, advertised class.
- Personality Type
  - Taught MBTI personality types, administered instrument, discussed temperament, compatibility, inclinations, and fundamentals.

RESEARCH EXPERIENCE

Advanced Air Mobility VTOL Performance and Analysis Range – integration into National Airspace; generate data for regulatory decisions 2026

Motion Sickness Susceptibility & Severity Questionnaire 2025

National General Aviation Flight Information database (NGAFID) 2025
Support data integration, analysis, and safety metric development; integration with ASIAS; helicopter flight data focus

Alliance for System Safety of UAS Through Research Excellence 2025 - 2026
Disaster Preparedness & Emergency Response

Alliance for System Safety of UAS Through Research Excellence 2024 - 2026
Safety Risk Management Analysis on sUAS DAA Systems

Haptic Feedback Impact on Pilot Situational Awareness 2024 - 2026

Dissertation 2020 to 2023
Cooley, J. R. (2023). *United States Coast Guard Aviation Safety Climate Assessment Instrument* (Doctoral dissertation, The University of North Dakota).
Advisor: Mark Dusenbury, Ph. D.

- Safety climate assessment
- Instrument development: questionnaire, survey, intervention strategies, leadership technique

US Coast Guard Headquarters, Washington, DC 2020 to 2022
“Ready Workforce 2030” book chapter

- Researched and published chapter in Service-wide publication
- Developed, & wrote strategic vision for CG support of its people

    - Medical care,
    - geo diversity,
    - Medical Doctor recruiting,
    - HR policies,
    - Evaluation/selection/promotion
- Commandant presented at State of the Coast Guard, 2022

Thesis, University of North Dakota, Grand Forks, ND 2017 to 2019
"United States Coast Guard Aviation Safety: Relationship Between the Safety Survey and the Extent of Hazard Reporting"

- Safety survey
- Hazard reporting definitions
- Safety culture validation

PUBLICATIONS

Books

United States Coast Guard. (2016). *Flight Safety Officer (FSO) Performance Qualification Standard (PQS)* (One of three authors).

Journal Publications

Cooley, J.R. "Tweaking the Invisible: Methods of Improving Aviation Safety Cultures," Air Beat, July/August, 2016, pp. 14-17.

U. S. Coast Guard. "Ready Workforce 2030," 2022, pp. 26-29 (Cooley led team authoring Line of Effort 3 chapter).

Journal Papers Accepted

Cooley, J.R. "New survey, so what?," Glideslope, N.D.

PROFESSIONAL SERVICE AND ROLES

Deputy Operations Section Chief (Air Operations) & Research Observer, Operation Unity Forward – multi-agency disaster-response SAR and mapping exercise (FAA ASSURE A84), with ND National Guard and state/local agencies; Williston, ND; September 29–30, 2026

Advisor, NorthSky Consortium (Traverse Connect) – regional UAS and Advanced Air Mobility initiative, Northern Michigan; 2025 – Present

Invited Participant, NorthSky Consortium federal briefing and roundtable with U.S. Senator Elissa Slotkin, Ninth Coast Guard District Commander, and USCG PEO Robotics & Autonomous Systems; Traverse City, MI; May 29, 2026

PRESENTATIONS AND INVITED LECTURES

Paper Presenter (peer-reviewed), Inter-University Seminar on Armed Forces and Society (IUS) Canada 2026, “Coast Guard Aviation Safety Climate Instrument: Development and Predictive Efficacy,” Carleton University, Ottawa, ON; October 23–25, 2026

Panelist, Michigan Economic Developers Association (MEDA) Fall Conference, “Driving Innovation, Workforce Development, and Economic Growth Through Strategic Alignment” – NorthSky Consortium, BVLOS corridors, and UAS/AAM; Traverse City, MI; October 9, 2026

Invited Presenter, “Asynchronous Andragogy” – designing interaction in asynchronous graduate courses, UND Aviation graduate faculty training; May, 2026

Guest of Honor and Speaker, CG Air Station Traverse City Dining Out – intrinsic motivation, personal readiness, and aviation safety culture; May 22, 2026

Panelist for XPONENTIAL: “Rural Regions, National Impact: Drones in Maritime Search & Rescue and Healthcare Logistics”; May 14, 2026

Panelist for Northern Michigan Startup Week – drone integration and maritime use; April 22, 2026

Instructor, “Single-Engine Over Water Considerations” – ditching, PPE, glide planning, and egress; ground and in-flight training, Traverse City, MI; August 2025

Guest Speaker, Spirit Airlines Operations Training; readiness, personal responsibility, leadership, & culture; May 29, 2025

Guest Speaker at the 2025 World Aviation Training Summit (WATS), “From Rescues to Readiness: Strengthening Human Factors in High-Stakes Performance,” April 9, 2025

Competitor, UND Three Minute Thesis (3MT), “Rescue the Rescuers” – USCG aviation safety climate; 2022

Guest Speaker, “USCG Updates,” Great Lakes Maritime Academy Board of Visitors Meeting, October 19, 2022.

Guest Trainer, Mountain Rescue, Corvallis, OR, 2017.

Moderator, “Crew Resource Management Breakout,” Flight Safety Officer Standardization Course, Orlando, FL, 2017.

Guest Speaker, “Engineering Opportunities in the U.S. Coast Guard & Aviation,” Clatsop Community College, Astoria, OR, 2016.

Keynote Address, Flight Safety Officer Standardization Course, Washington, DC, 2016.

Guest Speaker, Pacific Northwest Fishermen Safety Training – Coast Guard rescue capabilities, Astoria, OR, 2015.

Guest Speaker, Bahamian primary school, Ambassador-arranged, 2009.

PUBLIC APPEARANCES

Guest, “Brothers in Armchairs” podcast, interview discussing most harrowing rescues, 2021.

Helicopter Association International HAI@Work: “Managing Risk in Hazardous Environments,” 2022.

Host, “Aviation Safety Podcast,” released one-of-a-kind, Coast Guard-wide, 2014 - 2017.

The New York Times Magazine Feature, “The Wreck of the Kulluk,” interview, January 2015. https://www.nytimes.com/2015/01/04/magazine/the-wreck-of-the-kulluk.html

The Weather’s Channel’s “Coast Guard Cape Disappointment – Pacific Northwest” feature, television show covering helicopter rescues, 2013 - 2014.

The Weather’s Channel’s” Coast Guard Alaska” feature, television show covering helicopter rescues, 2011 – 2013.

CERTIFICATIONS, QUALIFICATIONS, DESIGNATIONS

MH-60T Redesignation	April 2022
Certified Flight Instructor – Helicopter Instruments Renewed in 2018, 2022, 2024	August 2016

Federal Aviation Safety Officer — February 2016
Interagency Committee for Aviation Policy

Airline Transport Pilot — June 2015

MH-60T Transition Course – qualified in airframe — May 2011

Collateral Duty Civil Rights Officer — May 2007

Incident Command System (ICS) Qualified — April 2007

Coast Guard Aviator Designation; # 3828 — October 2006

Commercial Instrument License – airplane & rotorcraft-helicopter — June 2006

HH-60J Transition Course – qualified in airframe — October 2006

Search & Rescue Fundamentals Qualified — October 2006

Landing Signal Officer — July 2004
Provided maneuvering signals to helicopters landing aboard ship; 50+ landings

Shipboard Rescue Swimmer — July 2004
Man overboard emergency response

PROFESSIONAL TRAINING

Command Cadre Ice Rescue Course — January 2023
U.S. Coast Guard

Operations Officer Course — April 2022
U.S. Coast Guard

Aviation Mishap Analysis Course — September 2019
Southern California Safety Institute

Certification in Aircraft Accident Investigation — September 2015

Investigation Management — September 2015
Southern California Safety Institute

Aviation Engineering Safety — June 2015
Southern California Safety Institute

Safety Management Systems — February 2015

Southern California Safety Institute

Human Factors in Accident Investigation — November 2014
Southern California Safety Institute

Gas Turbine Accident Investigation — August 2014
Southern California Safety Institute

High-Altitude Power Management Mountain Qualification Course — June 2014

Aviation Safety Officer School — May 2014

Aircraft Accident Investigation — May 2014
Southern California Safety Institute

Civil Rights Training — November 2006
As singular Civil Rights Officer at largest operational USCG air station

FAA Commercial Pilot — June 2006
Rotary and single-engine fixed wing

US Navy Flight Training — June 2006
Basic and Advanced

Enneagram — November 2002
Personality assessment

Myers-Briggs Type Indicator — June 2002
Personality assessment

HONORS AND AWARDS

Meritorious Service Medal — 2022
Meritorious Achievement as Aviation Safety Manager, USCG Headquarters

CG Commendation Medal (Operational) — 2017
Outstanding achievement saving & assisting 137 lives; 74 rescues; 84 instructional flights; co-wrote qualification standards for fleet Flight Safety Officers

Captain Marion Gus Shrode Award Aviation Safety — 2016
Singular winner for running best unit aviation safety program amongst all the US Coast Guard in preceding year.
https://aoptero.org/awards/roost-2016-awards/

PACAREA CG Foundation Admiral Chester R. Bender — 2015

Heroic action involving personal danger for high altitude helicopter rescue
Acceptance speech: https://www.youtube.com/watch?v=LFdROFHx7S0

Vertical Flight Technical - CAPT William J. Kossler Award, International Vertical Flight Society 2015
Greatest achievement in operation of vertical flight.
http://vtol.org/customincludes/showawards.cfm?awardid=8

Commandant's Letter of Commendation (Operational) 2015
Outstanding performance on two back-to-back rescues: 1. Overturned vessel and saving 5 lives; 2. Nighttime cliff rescue high hoist saving 2 lives.

CG Achievement Medal (Operational) 2014
Superior performance – High altitude rescue of injured ice climber
Featured on The Weather Channel's "Coast Guard Cape Disappointment Pacific Northwest"

CG Achievement Medal (Operational) 2013
Superior performance – 25 lives saved, 16 rescues, & catastrophic emergency
Extensive coverage on The Weather Channel's "Coast Guard Alaska" for numerous rescues

CG Achievement Medal (Operational) 2012
Superior performance – saved 12 persons from adrift oil rig headed toward rocks; delivered 1,500 pounds of critical engine parts to adrift tow vessel during 20' seas.
Rescue featured on The Weather Channel's "Coast Guard Alaska," Gentlemen's Quarterly magazine, National Public Radio, and The New York Times Magazine

CG Unit Commendation Ribbon 2012
Exceptionally meritorious service in response to the 2010 7.0 earthquake in Port-au-Prince, Haiti

CG Arctic Service Medal 2012
21 days of non-consecutive duty deployed with H-60 helicopter north of the Arctic Circle

CG Achievement Medal (Operational) 2011
Superior performance – 31 lives saved and assisted 57 others; 95 search and rescue cases; four hurricane responses; 25 LE cases resulting seizure of 5,580 kg of cocaine.

CG Achievement Medal (Operational) 2010
Superior performance – next-day response to Port-au-Prince, Haiti after January 2010 7.0 catastrophic earthquake. 37 people rescued. Transported 4 physicians and

$10k in antibiotics. In 14 days, flew H-60 helicopter 4,900 nautical miles over the course of 49 flight hours.

Humanitarian Service Medal 2010
UNIFIED RESPONSE – Haiti Earthquake Relief Effort

CG Achievement Medal (Operational) 2009
Superior performance – saving heart attack victim from fishing vessel in 20' seas; 245 NM transit, middle of the night long range medevac

CG Commendation Medal (Operational) 2008
Outstanding achievement flying rescues/logistics and humanitarian aid in the wake of 2 consecutive hurricanes

Commandant's Letter of Commendation (Operational) 2008
Outstanding performance as pilot responding to pre-dawn MAYDAY; vessel taking on water, 8' seas, pitch black, night vision goggle (NVG) failure, night hoisted rescue swimmer and two survivors from life raft; 2 lives saved.

Humanitarian Service Medal 2008
Hurricane Hanna Disaster Relief

CG Presidential Unit Citation 2005
Meritorious achievement and outstanding performance in action from 29 August to 13 September 2005 in preparation for, and response and recovery to the devastation wrought by Hurricane Katrina.

Commandant's Letter of Commendation (Operational) 2004
Outstanding performance as ship-driver onboard icebreaker; arranged $900,000 worth of mission essential training and managed 250 scientist's administration over the course of 12 months underway.

CG Arctic Service Medal 2003
21 days of non-consecutive duty deployed onboard icebreaker HEALY north of the Arctic Circle

Global War Terror Service Medal 2003

CG Special Operations Service Ribbon 2003

CG Sea Service Ribbon 2003

National Defense Service Medals 2001
Global War on Terrorism