

***REX J ALEXANDER***  
***CURRICULUM VITAE***

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**PERSONAL DATA**



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**EDUCATION & CERTIFICATIONS**

- 2018: Advanced Rotorcraft Accident Investigation, Transportation Safety Institute, U.S. Department of Transportation, Oklahoma City, OK
- 2015: Recertification, International Standards for Business Aircraft Operations (IS-BAO) Auditing Workshop, Orlando, FL
- 2015: Recertification, International Standards for Business Aircraft Operations (IS-BAO) Fundamentals of IS-BAO Workshop, Orlando, FL
- 2013: Initial, International Standards for Business Aircraft Operations (IS-BAO) Auditing Workshop, Chicago, IL
- 2013: Initial, International Standards for Business Aircraft Operations (IS-BAO) Fundamentals of IS-BAO Workshop, Chicago, IL
- 2010: Transportation Safety Institute (TSI) / Federal Aviation Administration (FAA) Heliport Evaluation (Prototype) Training course, Oklahoma City, OK
- 2006: Performance Improvement Training for Healthcare, Executive Learning Inc., Dallas, TX
- 2006: Corporate Facilitator Training, Executive Learning Inc., Dallas, TX
- 1990: United States Army Crew Resource Management Instructor Course, Fort Hood, TX
- 1990: United States Army Aeroscout Instructors Course, Fort Rucker, AL
- 1987: United States Army Aeroscout Aviators Course, Fort Rucker, AL
- 1986: United States Army Rotary Wing Basic Course, Fort Rucker, AL
- 1986: United States Army Warrant Officer Course, Fort Rucker, AL
- 1985: B.S. in Aviation Maintenance and Management, Parks College of Aviation & Aerospace Technology, St. Louis University, St. Louis, MO
- 1985: Certified Airframe and Powerplant (A&P) Technician, Parks College of Aviation & Aerospace Technology, St. Louis University, St. Louis, MO

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**WORK EXPERIENCE**

***Five-Alpha L.L.C.***

*Feb 2018 – Present: President*

- Consultant in the aviation, helicopter, VTOL and air medical industries. Specialized in infrastructure design and safety, accident research, flight operations, program auditing, crew resource management, air medical resource management, training, education and eLearning.

***Uber Technologies***

*Sep 2017 – Feb 2018: Head of Aviation Infrastructure*

- *Responsible for developing aviation infrastructure to support safe sustainable VTOL networks in high density urban environments on a global scale to advance urban-air mobility for the future.*

***HeliExperts International LLC***

*Jan 2012 – Sep 2017: Co-Founder & Co-Owner*

- International consultancy services in the aviation, helicopter and air medical industries. Specializing in helicopter & heliport infrastructure safety, design, risk analysis and audits, HEMS operations, IS-BAO Auditing, education, training, litigation support and expert witness services.

***R.J. Alexander Consulting, L.L.C.***

*Apr 2004 – Jan 2013: Owner/Operator*

- Consultant in the aviation, helicopter and air medical industries specializing in heliport design, operations, training and safety.

***Air Methods Corp.***

*Aug 2011- Apr 2013: Helicopter EMS Lead Pilot*

- Lead pilot and air medical helicopter pilot for Air Methods Corp at Lutheran Hospital, Fort Wayne, Indiana.

***Omniflight Helicopters Inc.***

*Nov 2008 – Aug 2011: Regional Operations Manager, Central U.S.*

- Oversee and coordinate part-135 air medical helicopter operations at 24 locations in 8 states throughout the Central United States.
- Primary liaison for operations, safety, maintenance and customer relations for hospital-based operations.
- Lead Project Manager overseeing multiple new startup programs and the integration of established programs.
- Primary trainer and educator of base managers, site managers, medical crews and communication specialists.
- Base auditor and inspector.

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### **Omniflight Helicopters Inc.**

*Apr 2004 – Nov 2008: Helicopter EMS Base Manager & Lead Pilot*

- Base manager and air medical helicopter pilot for Omniflight Helicopters at Lutheran Hospital, Fort Wayne, Indiana.

### **Omniflight Helicopters Inc.**

*Jul 1994 – Apr 2004: Helicopter EMS Pilot & Base Safety Manager*

- Air medical helicopter pilot at Methodist Hospital in Indianapolis, Indiana.
- Program safety Manager
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### **Crescent Helicopters**

*Feb 1994 – Jul 1994: Offshore Helicopter Pilot in the Gulf of Mexico*

Provide transportation to oil field operators, equipment and supplies throughout the oil field infrastructure of the Gulf of Mexico.

### **U. S. Army Active & Guard**

*Oct 1985 – Mar 1995: Pilot, Instructor Pilot and Standardization Instructor Pilot*

- Helicopter pilot in command operating both in the United States and overseas.
- Attached to the following units of operation: General Support Company, Helicopter Cavalry Squadron, Attack Helicopter Battalion, and Target Acquisition and Reconnaissance Platoon.
- School Trained Aeroscout and Aeroscout Instructor Pilot
- Standardization Instructor Pilot
- Specialization: Reconnaissance, Target Acquisition, Close Air Support, Joint Air Attack Coordination and Command and Control. Advanced combat skills instructor for day, night and night vision goggle operations.

### **McDonald Douglas Corp.**

*Jan 1985 – Aug 1985: Inspector in Aircraft Manufacturing*

- Structural and component inspector specialized in composite, sheet metal and hydraulic fabrication inspection during construction and assembly of:
  - F-18 Hornet
  - F-15 Eagle
  - AV-8B Harrier

## **CERTIFICATES & LICENSES**

- **Commercial Pilot**
  - Rotorcraft-Helicopter
  - Instrument-Helicopter
- **Private Pilot**
  - Airplane Single-Engine Land

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- **Mechanic Rating (A&P)**
  - Airframe
  - Powerplant
  
- **U.S. Military, Army**
  - Certified Aeroscout Pilot
  - Certified Aeroscout Instructor Pilot
  - Standardization Instructor Pilot

**FLIGHT EXPERIENCE**

Total Flight Time	5,100
Helicopter	5,000
Night	1,240
Cross Country	1,400
# of Patients Transported	3,130

Pilot-in-Command	4,900
Military Instructor Pilot	427
Night Vision Goggle	310
Air Medical	3,230
Instrument	75

**INDUSTRY EXPERIENCE**

- Infrastructure Advisor, Vertical Flight Society (VFS)
- Former President, National EMS Pilots Association (NEMSPA)
- Former President, Indiana Association of Air Medical Services (IAAMS)
- Former Board Member, National EMS Pilots Association (NEMSPA)
- Former Board Member, Indiana Association of Air Medical Services (IAAMS)
- Committee Member – American Society of Testing and Materials International (ASTM) F38 Unmanned Aircraft Systems
- Committee Member- Helicopter Association International Heliport Committee
- Former Committee Member - Helicopter Association International Air Medical Services Committee
- Committee Member, National Fire Protection Association (NFPA) 418 Standards for Heliports.
- Committee Member and Co-Chair, U.S. Helicopter Safety Team (USHST) Infrastructure Working Group (IWG)
- Former Committee Member, U.S. Helicopter Safety Team (USHST) Human Factors Working Group
- Past Instructor for the National Association of Air Medical Communication Specialists (NAACS)

**CONSULTING SPECIALTIES**

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- eLearning Development for Aviation and Helicopter Safety Training
- VTOL Infrastructure Safety, Design, Audits & Risk Analysis
- Helicopter Infrastructure Safety, Design, Audits & Risk Analysis
- IBC, IFC & NFPA Code Interpretation for Helicopter Infrastructure
- Helicopter Air Ambulance Operations & Safety
- Aviation Infrastructure Master Planning
- IS-BAO Auditor (Rotary Wing & Fixed Wing/Operations & Maintenance)
- Air Medical Program Design and Development
- Emergency Action Plan Development and Evaluation
- Regulatory Interpretation & Research
- Helicopter Accident Investigative Research
- Government and Regulatory Representation and Relations
- Public Speaker, Lecturer & Educator

### **LECTURES & SEMINARS DEVELOPED & PRESENTED**

- The HEMS Weather Tool, the best kept aviation weather secret.
- Heliport Accident Prevention, what you don't know can kill you.
- The Future of Air Mobility
- Putting Professionalism back into Pilot Decision Making and the Top-10 most undesirable attitudes in Air Medical Transport.
- Are You a Human Factors Disaster? Normalization of Deviance in Pilot Decision Making.
- Pilot Error Truth or Dare: Accidents at heliports blamed on pilots where poor infrastructure was a major contributing factor
- Preemptive Accident Investigation Techniques from the FAA and NTSB
- Haiti Aviation Infrastructure Design / Concepts for a Growing Country
- Helicopter Infrastructure Safety Concepts from the IHST/JHSIT/IWG
- HEMS Weather Reporting and Safety Issues
- HEMS Infrastructure An Accident Review
- Customer Service and Safety / Promises That Should Never Be Made
- Artificially Induced Heliport Turbulence / Causes, Effects and Prevention
- Magnetic Hazards at Heliports
- Heliport Paint Schemes for Night Vision Goggle Operations
- Creating a Compatible Night Vision System Infrastructure
- Aviation Weather and EMS Operations
- Air Medical Helicopter Scene Operations and Safety
- Emergency Action Plans and Good Practices
- First Responder Training for Air Medical Helicopter Operations
- Navigation and Map Reading

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- Flight Following
- Radio Operations for EMS and Air Medicine
- Hazardous Materials and Helicopter Operations
- Aviation Operational Control in Air Medicine
- Federal Aviation Regulations
- Jet Fuel System design, Installation & Management
- Air Medical Personal Protective Equipment
- Hospital Staff Helicopter and Heliport Safety
- Heliport Design, Safety and Education
- Quality Communications Skills
- Setting Up and Running a Safety Committee
- Positive Habit Transfer in Aviation and EMS
- Air Medical Contracts 101
- HEMS Accident Intangibles
- HEMS Advanced Accident Investigation
- How To Be a Air Medical Base Manager
- Helicopter Ground Handling Safety
- Flight Physiology for Air Medical Crews
- Top-10 Killer Attitudes
- Air Medical Accident Review for Communication Specialists
- Safety & Shift Flight Briefings and Debriefings

### **SPEAKING & LECTURING ENGAGEMENTS**

#### **Experimental Aircraft Association (EAA) AirVenture Air Show**

- 2017 – Oshkosh, Wisconsin (FAASTeam)
- 2016 – Oshkosh, Wisconsin (FAASTeam)

#### **FAA International Rotorcraft Safety Conference**

- 2018 – Hurst, Texas

#### **Helicopter Association International (HAI) HeliExpo Conference**

- 2017 – Dallas, Texas
- 2016 – Louisville, Kentucky
- 2015 – Orlando, Florida
- 2014 – Anaheim, California
- 2013 – Las Vegas, Nevada
- 2012 – Dallas, Texas
- 2010 – Orlando, Florida

#### **Indiana Emergency Response Conference (IERC)**

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- 2014 – Indianapolis, Indiana (INAAMS Midwest HEMS Conference)
- 2011 – Indianapolis, Indiana
- 2007 – Indianapolis, Indiana
- 2006 – Indianapolis, Indiana
- 2005 – Indianapolis, Indiana

**Indiana Hazardous Material Conference**

- 2006 – Helicopters and HAZMAT situations, Greenwood, Indiana

**National Air Medical Transport Conference (AMTC)**

- 2017 – Fort Worth, Texas
- 2016 – Charlotte, North Carolina
- 2014 – Nashville, Tennessee
- 2013 – Virginia Beach, Virginia
- 2010 – Fort Lauderdale, Florida
- 2009 – San Jose, California
- 2008 – Minneapolis, Minnesota
- 2007 – Tampa, Florida
- 2005 – Austin, Texas

**National Association of Air Medical Communication Specialists (NAACS)**

- Multiple years and locations throughout the United States.

**National Association of State Aviation Officers (NASAO)**

- 2018 – Washington, DC (Legislative Conference)

**National Business Aviation Association (NBAA) Friends and Partners of Aviation Weather (FPAW)**

- 2014 – HEMS Weather and the HEMS Weather Tool, Orlando, Florida

**National Fire Protection Association (NFPA)**

- 2018 – Las Vegas, Nevada (National Conference)

**North Carolina D.O.T. Division of Aviation, State Helicopter Safety Conference**

- 2008 – Lowes Motor Speedway, Concord, North Carolina

**Ohio Transportation Engineering Conference**

- 2018 – Columbus, Ohio

**Rotors & Ribs Fly-In and FAAS Team Event**

- 2016 – Goshen, Indiana
- 2015 – Goshen, Indiana

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### **Transportation and Safety Institute (TSI); Oklahoma City, Oklahoma**

- 2018 – Poor Infrastructure as a Causation Factor in Helicopter Accidents
- 2011 – Helicopter Air Ambulance Accident Investigation Techniques & Tips
- 2010 – Helicopter Infrastructure Design and Safety Evaluation Course

### **Uber Elevate Summit**

- 2018 – Los Angeles, California
- 2017 – Dallas, Texas

## **PUBLICATIONS/ARTICLES/VIDEOS**

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Rex J. Alexander, Kenny Keller, Gary Cleveland, FAASTeam video webinar, [“One of the best kept weather secrets in Aviation”](#) (October 2018).

Rex J. Alexander, Kenny Keller, Gary Cleveland, FAASTeam video webinar, [“Heliport Accident Prevention, what you don’t know can kill you!”](#) (September 2018).

Robert C. Matthews, Rex J. Alexander, Richard B. Stone, [“Helicopter Accident Trends in 8 ISASI Countries and How We Might Improve the Fatal Accident Rate Even Further”](#) (August 2017) International Society of Air Safety Investigators (ISASI).

Rex J. Alexander & Raymond A. Syms, [“How to Protect Your Airspace”](#) (March 2017); What heliport owners need to know and do to protect their airspace.

Rex J. Alexander & Raymond A. Syms, [“You Think Your Airspace is Protected”](#) (February 2017); How Avoiding FAA Recommended Practices Could Lead to High Risk and Potentially Disastrous Airspace.

Rex J. Alexander, [“Deadly Data”](#), Rotor and Wing Magazine (June 2016); An overview of the FAA Airport Master Record database inaccuracies and its effect on flight planning, GPS navigation and UAS operations.

Rex J. Alexander & Larry Mattiello, [“Heliport Insurance”](#), Rotor and Wing Magazine (February 2016); Proper and appropriate insurance assessment and coverages for heliport owners.

Rex J. Alexander, [“The Hangman Cometh?”](#), Rotor and Wing Magazine (October 2015); How the improper wear of NVG helmet mounted devices may cause injury, paralysis or death in an otherwise survivable accident.



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Rex J. Alexander, "[Tangled Web](#)", Rotor and Wing Magazine (July 2015); The interrelationship of international, federal, state and local regulations and codes on heliport design, construction and operation.

Rex J. Alexander, "[Are Your Heliports Killing Your Patients?](#)", Waypoint AirMed & Rescue Magazine (August 2104); Impact that hospital heliport design can have on patient morbidity and mortality.

Rex J. Alexander, "[Magnetic Hazards at Heliports](#)", Waypoint AirMed & Rescue Magazine (Issue 44 / March 2013); Magnetic hazards at heliports and risk mitigation strategies to avoid them.

Rex J. Alexander, "[Defeating the Survivor Syndrome](#)", Air Medical Journal, Presidents Forum, (March/April 2012); Avoiding the destructive us versus them syndrome.

Rex J. Alexander, "[Making Opinions Count](#)", Air Medical Journal, Presidents Forum, (January/February 2012); An overview of NEMSPA's heliport safety survey results.

Rex J. Alexander (Co Author), "[EMS Pilots Credo](#)", National EMS Pilots Association 2012, standards of excellence for professional medical pilots.

Rex J. Alexander, "[Professionalism](#)", Air Medical Journal, Presidents Forum, (November/December 2011); Introduction of the NEMSPA "Air Medical Pilots Credo in response to the NTSB naming professionalism to their Top-10 list.

Rex J. Alexander, "[Just Do the Right Thing](#)", Air Medical Journal, Presidents Forum, (September/October 2011); A breakdown of NEMSPA's philosophy, history and goals.

Rex J. Alexander, "[Who is NEMSPA](#)", Waypoint AirMed & Rescue Magazine, (August 2011); An overview of who and what NEMSPA is, does and has accomplished.

Rex J. Alexander, "[Breaking the Cycle](#)", Air Medical Journal, Presidents Forum, (July/August 2011); Avoiding the repetitive cycle of failure due to leadership change.

Rex J. Alexander, "[Heli-Expo 2011](#)", Air Medical Journal, Presidents Forum, (May/June 2011); An overview of current and ongoing NEMSPA industry initiatives.

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Rex J. Alexander, ["Adding the Salt"](#), Air Medical Journal, Presidents Forum, (March/April 2011); An overview of NEMSPA's position paper on the FAA NPRM regarding rule making for part 135 and 91 helicopter operations.

Rex J. Alexander, ["Putting the Air Back In"](#), Air Medical Journal, Presidents Forum, (November/December 2010); An overview of the need to encourage programs to involve their pilots in the air medical industry.

Rex J. Alexander ["Here's Your Sign!"](#), National EMS Pilots Associations AIRNET (April 2010), Warning and caution signs that every heliport should have to enhance safety and reduce liability.

Rex J. Alexander, ["The Hot Load, Time Saver or Time Waster?"](#), National EMS Pilots Associations AIRNET (January 2009) Risk benefit evaluation associated with hot loading versus cold loading patients into a helicopter.

Rex J. Alexander (Co Author), "An Opportunity to Improve - Addendum", Follow on Statements from the National EMS Pilots Association, provided to the NTSB for consideration for the 2009 Helicopter EMS Safety Hearings.

Rex J. Alexander (Co Author), ["An Opportunity to Improve"](#), Statements from the National EMS Pilots Association, provided to the NTSB for consideration for the 2009 Helicopter EMS Safety Hearings.

Rex J. Alexander, ["Air Medical Launch Times and Influencing Factors"](#), National EMS Pilots Association AIRNET (January 2008) Review of influencing factors that dictate what a reasonable safe launch time standard should be and the consequences of not paying attention to real world data and variables.

Rex J. Alexander, ["Hospital Helipads: Safety, Liability, and Regulatory Issues Hospitals Must Know and Consider"](#), National EMS Pilots Associations (September 2008) Web based presentation covering heliport design, safety, regulations, fire protection, risk assessment and liability considerations.

Rex J. Alexander, ["Helicopter Shopping: What Hospitals & First Responders Need to Know"](#), (January 2008) Discussing the challenges and hidden dangers of coordinating flight requests across multiple hospital and first responder systems.

Rex J. Alexander, ["The Option Play"](#), National EMS Pilots Associations AIRNET (January 2007) Commenting on the pilot's role in risk management for HEMS operations.

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Rex J. Alexander, "*The Illusive Silver Bullet*", National EMS Pilots Associations AIRNET (January 2007) Emphasizing a comprehensive common-sense approach based on culture not technology to reducing HEMS accidents.

### **INDUSTRY INITIATIVES PARTICIPATED IN**

- Lead organizer, participant and industry liaison for the USHST/FAA heliport design guide review, 2018 ad-hoc committee efforts to develop recommendations for the next revision of FAA Heliport Design Guide AC 150/5390.
- Lead organizer, participant and industry liaison for the USHST/FAA 5010 Airport Master Record 2018 ad-hoc committee efforts to develop a Heliport/Vertiport specific 5010 airport master record.
- Lead organizer and participant in the USHST 2018 Government/Industry Infrastructure Summit in Washington, DC (Feb 16-17) to discuss; Low Altitude Weather Reporting, Heliport Design and Safety, Airspace & Low Altitude IFR
- Lead organizer and participant in the USHST 2017 Government/Industry Infrastructure Summit in Washington, DC (Feb 16-17) to discuss; Low Altitude Weather Reporting, Heliport Design and Safety, Airspace & Low Altitude IFR
- Participant in the 2016 Rotorcraft Technology Summit by Rotor and Wing International and lead panelist for the Low-Level Infrastructure Discussion Group.
- Participant in the development of the Aviators Model Code of Conduct (AMCC) Flight Safety in the Drone Age safety guidance and technical paper.
- Lead organizer and participant in the USHST 2016 Government/Industry Infrastructure Summit in Washington, DC (Feb 11-12) to discuss; Low Altitude Weather Reporting, Heliport Design and Safety, Airspace & Low Altitude IFR
- Participant in National Business Aviation Association (NBAA) Light Emitting Diode (LED) Airport/Heliport Lighting Task Group.
- Lead coordinator and participant in FAA Helicopter Emergency Medical Services (HEMS) Safety Risk Management Panel (SRMP) for furthering the HEMS Weather Tool, Washington D.C, 2014.
- Participant in Friends and Partners of Aviation Weather (FPAW) at NBAA meeting in Orlando, Florida.

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- Lead coordinator and participant for USHST Government/Industry HEMS Weather Safety Summit, Washington, D.C 2013, in collaboration with the FAA, NCAR, UCAR, NOAA, NWS and AWC.
- Participated with industry professionals in the design and writing of the Helicopter Pilots Model Code of Conduct (HMCC).
- Primary author and architect of the International Online Heliport Risk and Liability Assessment Toolkit.
- Lead author of the National EMS Pilots Association (NEMSPA) National Heliport Safety Survey.
- Committee member and contributor on the Model Air Medical State Guidelines Task Force (MASGIT).
- Participant in the Federal Aviation Administration's (FAA) Aviation Weather Research Program (AWRP) National Ceiling and Visibility Analysis (NCV) Product Development Team (PDT), Ceiling and Visibility Analysis (CVA) Preliminary Hazards Assessment (PHA) of an algorithm program for automated real-time analysis of current ceiling and visibility conditions across the contiguous United States (CONUS).
- Co-Author National EMS Pilots Association White Paper "Utilization of an Independent Industry Task Force for the Review and Rewrite of the FAA/DOT Heliport Advisory Circular".
- Co-Author of the National EMS Pilots Association (NEMSPA) review and comments on the Federal Aviation Association HEMS NPRM on HEMS and Part 135 and Part 91 helicopter operations.
- Co-Contributor on National EMS Pilots Association (NEMSPA) En-route Decision Point Program.
- Co-Contributor on National EMS Pilots Association (NEMSPA) No Pressure Initiative/CHAMPS (Cultural Health Assessment and Mitigation Program for Safety).
- Participant in the Federal Aviation Administration (FAA) and Transportation Safety Institute (TSI) course creation, "Heliport Evaluation Course" for FAA and DOT field inspectors.
- Lead designer of the National EMS Pilots Association (NEMSPA) Heliport Safety Sign Campaign.

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- Member of the Association of Air Medical Services (AAMS) Safety Management Training Academies planning committee and curriculum development group.
- Participant in the Federal Aviation Administration and Helicopter Association International A021 Operational Specifications Rewrite Efforts.
- National EMS Pilots Association (NEMSPA) board member participant and party member participant in the NTSB four-day hearing on Helicopter EMS operations and accident prevention, Washington, D.C.
- Co-Coordinator of Indiana Association of Air Medical Service (INAAMS) state wide education program on the “Dangers of Helicopter Shopping”.