Kelsey McManus

Industrial Engineer

About Me

Dynamic Industrial Engineer with proven expertise in aviation and aerospace, delivering innovative solutions in complex environments. Skilled in continuous improvement, operations optimization, and implementing Safety Management Systems (SMS), Quality Management Systems (QMS), Lean Production, and Business Planning initiatives. Adept at aligning engineering excellence with strategic objectives while fostering cross-functional collaboration through strong communication and leadership.

EXPERIENCE

Federal Aviation Administration, Washington DC

Aircraft Certification (AIR-877) - *Industrial Engineer* Oct 2021 - PRESENT

- Serves as an Industrial Engineer in the Program Management Section of the Systems Oversight Division in Aircraft Certification.
- Coordinated with the Safety Management Section (AIR-841) to conduct outreach efforts, encouraging Type Certificate (TC) and Production Certificate (PC) holders to participate in the Voluntary SMS Program (VSMS).
- Collaborate with SMS Section and field offices to develop implementation and oversight processes for 14 CFR Part 5 revisions, enhancing Safety Management System (SMS) compliance.
- **Developed a multi-year plan to accelerate SMS maturity by 1-3 years for the 60 Design and Manufacturing Approval Holders** while enhancing the knowledge, skills, and capabilities of the ASIs and ASEs responsible for their oversight.
- Contributed to the Part 5 SMS Policy and SMS Project Management teams, providing input and strategic recommendations on behalf of System Oversight Industrial and Systems Engineers.
- Assisted in the development of Apian-based SMS Page and Data Collection Tools (DCTs) with AIR-844, improving data tracking and reporting capabilities.
- Guided multiple Approval Holders in the development of their Part 5 compliant SMS.
- Managed the Operationalization of the Program Management Sections (AIR-8x7s), creating timelines, work breakdown structures, and workflows to improve decision-making and deliverables.
- Developed processes and workload requirements for transitioning 48 ODA Oversight responsibilities from AIR-700 to AIR-8x7, optimizing resource allocation and improving certification focus.
- Graduated from the FAA Aspiring Managers Program (AMP), enhancing leadership skills through a 9-month intensive program focused on self-discovery and core competency development.
- Partnered with AIR-500 and AIR-860 on the ODA Key Performance Indicator (KPI) project, conducting data analysis and contributing to KPI development for the Corrective Action program.
- Engaged with internal and external stakeholders to acquire relevant databases, ensuring data accuracy and informed decision-making.
- Analyzed systems, processes, and procedures for the System Oversight Division in coordination with regional Industrial and Systems Engineers, providing strategic guidance and alternative solutions.
- Developed and delivered high-impact presentations to senior leadership, effectively communicating project objectives, progress, and data-driven insights to support strategic decision-making.

QMS Planning and Performance (AQS-120) - *Industrial Engineer* Dec 2018 - Oct 2021

- Served as an Industrial Engineer and NCA Advisor for the QMS Planning and Performance Branch of Aviation Safety (AQS-120)
- Transformed the Corrective Action Request (CAR) process into the enterprise-wide Nonconformity and Corrective Action (NCA) process, **increasing corrective action effectiveness from 30% to 85% in under eight months, earning the Vi Lipski Award for Integration.**

- Led development of policies, programs, and key performance indicators for AQS-120 to drive Aviation Safety's (AVS) quality, sustainability, and occupational safety goals, ensuring compliance with ISO 9001:2015.
- Deployed process engineering tools (e.g., Process Mapping, Cause and Effect Diagrams, SIPOC) to scrutinize and enhance AVS-Level QMS processes.
- Directed engineering initiatives as a Sr. Industrial Engineer in the Quality, Integration, & Process Division, leading design work, field inspections, contractor assessments, data analysis, trend evaluations, testing, and technical reporting.
- Established cross-functional partnerships with multiple service offices to drive standardized process optimization strategies aligned with strategic initiatives.
- Oversaw the non-conformance and corrective action process by establishing robust policies, guiding resolution efforts, and facilitating root cause analyses to enhance operational performance.
- Trained new team members and served as the primary point of contact, ensuring effective communication and collaboration across internal units and with external stakeholders.

Nordstrom, Upper Marlboro MD

Industrial Engineer June 2015 - Dec 2018

- Member of Supply Chain Team at the East Coast Distribution Center (DC) and Fulfillment Center (FC).
- Designed and deployed a new store returns department which resulted in a reduction of millions of dollars in backlog from the FC network.
- **Project manager of $4.8M shipping sorter updated project, resulting in an 84% increase in carton throughput**. Managed schedule, worked with contractors, created and conducted test plans, and coordinated with operations to minimize impacts.
- Project Manager and Lead Engineer for the design and deployment of an Automated Storage and Retrieval (ASR) system and Automated Bulk Sorting System. Designed layout of the systems, designed processes, managed schedule and coordinated work of contractors.
- Led continuous improvement and lean six sigma projects through time studies and data analysis to optimize solutions. Projects resulted in reduction of errors and decreased costs.
- Developed and conducted new employee training on new processes, tools, and systems.
- Created and presented project decks to executives, reporting progress, milestones, risks, and successes.
- Supervisor of three employees in the Productivity Evaluation Program (PEP) Office.

EDUCATION

Rochester Institute of Technology (RIT), Rochester, NY Sept 2010 - June 2015

BS Industrial Engineering, MEng Sustainability Engineering

Capstone: Comparative Lifecycle Assessment of Traditional vs Additive Titanium Manufacturing in Aerospace

Co-ops: GE Aviation Engines Services, Erlanger KY, 2012; Wegmans Food Markets Store and Facility Maintenance, Rochester NY, 2013; GE Aviation Turning Parts Manufacturing Operations, Lynn MA, 2014

Skills

Technical: Lean Production, Six Sigma, Kaizen Continuous Improvement, FMEA, Value Stream Mapping, SIPOC, Root Cause Analysis, Business Process Reengineering, and Change Management (ADKAR Model)

Regulatory and Compliance: 14 CFR, ISO 9001:2015, OSHA, ANSI & ASTM Standards

Software: Microsoft Word, Excel, Project, Visual Basics, Power Point, PowerBi, Arena Simulator, FlexSim, AutoCad