



Job Title: Senior Systems Engineer

Reports To: Engineering Manager

Summary of Position:

Responsible for various multi-disciplinary engineering tasks related to aircraft cargo handling systems with emphasis on functional analysis, requirements management, safety assessment and product reliability. Support development of aircraft cargo loading system with emphasis on structural integrity, customer specification and airworthiness of the product.

Duties and Responsibilities:

- Selects appropriate methods, techniques and evaluation criteria to accomplish complex engineering tasks in creative and effective ways, developing standards and guidance for diverse engineering activities.
- Is consulted extensively by associates and others as a recognized authority within the field.
- Approach to problem solving balances technical product, cost and schedule.
- Exercise latitude and creativity in determining technical objectives of assignments.
- Makes decisions and recommendations that are recognized as authoritative.
- Support design of aircraft cargo loading, cargo handling and aerial delivery systems with emphasis on system functionality, integrity, availability, performance, and airworthiness to ensure flight safety and Part 25 certification.
- Prepare and review System Concept of Operations.
- Establish and manage high-level and low-level requirements for aircraft cargo loading, cargo handling and aerial delivery systems.
- Generate system deliverables and artifacts per ARP4754.
- Perform safety assessment process in accordance with ARP4761, including but not limited to, Functional Hazard Assessment (FHA), System Safety Assessment (SSA), Fault Tree Analysis (FTA), Common Mode Analysis (CMA).
- Conduct, evaluate results, and document simulation laboratory tests of cargo handling/aerial delivery control systems.
- Support flight test activities, including but not limited to troubleshooting, validation and verification of cargo handling/aerial delivery control systems.
- Work with the Electrical Systems team to successfully develop the aerial delivery control system to DO-254 and DO-178 DAL A requirements.
- Participate in preparing proposal and other marketing documents to meet objective of the department.
- Prepare and review certification document in accordance with customer specification or Certification Authority requirement.
- Work independently to gather data and input on the development of original designs or adaptations of existing designs after having been given general instructions regarding purpose and parameters.



Duties and Responsibilities (Continued):

- Create, review and approve of technical documents reports covering the following topics:
 - System Description.
 - System Safety Assessment.
 - System Integration.
 - System and Equipment Specifications.
 - System and Equipment Compliance Documents.
 - Environmental performance verification and qualification per DO-160, MIL-STD-810.
 - Dynamic and Thermal Analyses.
 - Root Cause Analysis and Corrective Action Requests (RCCA).
 - Detail and Assembly Drawings per ANSI Y14.100, including advancing the use of Model.
 - Change Requests and Change Orders.
- All other duties as assigned.

Core Competencies:

- Commitment to company values and ethics.
- Dependability: personally responsible, completes work in a timely manner, and performs tasks accurately.
- Motivation: must maintain a positive attitude and strong work energy.
- Advanced computer proficiency.
- Analytical skills: must be able to gather information and use data to determine cause and effect for complex problem solving.
- Communication: excellent interpersonal and oral and written communication skills.
- Independent: must have the ability to carry out and follow through on tasks with minimal supervision.
- Problem Solving: ability to develop and implement new ideas to improve processes.
- Must maintain strict confidentiality and professionalism.
- Organization: very detail oriented and always comes prepared.
- Time management: ability to organize and manage multiple priorities and effectively deal with tight deadlines and pressure situations.

Qualifications:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.



Education and/or Experience:

- Minimum: Bachelor of Science degree (B.S.) in Mechanical or Aeronautical/Aerospace Engineering from a four-year college or university.
- Preferred: Master of Science degree (M.S.) in Mechanical or Aeronautical/Aerospace Engineering or related field of study.
- Working knowledge of ARP4761 and ARP4754.
- Experience with IBM DOORS and CAFTA or similar Fault Tree Analysis tools.
- Knowledge of aircraft mechanical and electro-mechanical systems.
- Knowledge of reliability engineering theory.
- Experience in the troubleshooting of mechanisms in the context of the development cycle.
- Experience in the certification of mechanical and electro-mechanical components for civil or military aerospace applications.
- Software Safety experience is an asset.
- Experience in the creation, publication, and revision of engineering drawings in accordance with ANSY Y14.100 standards.
- Advanced Experience with SolidWorks toolset or equivalent.

Physical Demands/Work Environment:

The physical demands and work environment characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Maneuvers in, around, under, and about factory and/or laboratory equipment on a regular and continuous basis.
- Must be able to lift and carry up to 40 pounds and comply with OSHA standards.

While performing the duties of this job, the employee may be regularly required to sit, stand, bend, reach and move about the facility. The environment characteristic for this position is an office setting. Candidates should be able to adapt to a traditional business environment.

To apply, submit resume: www.uscargosystems.com/careers/