**Vehicle Management Systems Manager**

at Overair, Inc.

Santa Ana, CA

**Company Overview**:

At Overair, we are dedicated to bring next generation sustainable air transportation to everyone. Our answer is Butterfly, an all-electric vertical takeoff and landing (VTOL) aircraft designed to safely and affordably carry passengers over traffic and congestion. Butterfly leverages over two decades of VTOL aircraft development, patented VTOL technology, and flight vehicle experience.

Overair believes in the lofty goals of sustainable air mobility and we are committed to solving the hard challenges along the way.  We are building an industry leading team covering an expanse of skills, talents, and expertise in order to build a superior electric VTOL aircraft.  If you enjoy solving difficult problems, and seeing your ideas and visions expressed in flying aircraft, we want you on our team.

**Job Overview**:

We are looking for an exceptional candidate to manager and provide technical oversight to the Vehicle Management Systems (VMS) engineering group . In this role the VMS Manager will be responsible for building out a world-class Flight Control and Software team and the associated processes to consistently deliver high-quality engineering outputs. Qualified candidates will specifically be responsible for managing the electrical, flight deck, flight controls and FBW, and avionics subsystem engineering personnel at Overair. The ideal candidate would also be a technical leader serving as a system-level expert for integration and coordination activities with various departments and the certification authorities. They will be expected to apply broad engineering knowledge in analyzing and developing solutions to a wide variety of EVTOL VMS implementations and architectures.

This role requires the candidate to thrive in a high paced environment and be comfortable with the design, development, and test life cycle of rapid aerospace R&D.  In order to be successful in this role, you should be capable of leading collaborative projects to completion with minimal oversight.  This role will include interfacing with engineering management, certification authorities, and fellow engineers and analysts, so strong communication and inter-personal skills are required

**Roles and Responsibilities:**

* Serve as the functional manager and subject matter expert for the Vehicle Management Systems (VMS) development within Overair's Engineering organization.
* Build out the VMS group including staffing key roles, defining processes, and ensuring the execution and quality of all work products from the department.
* Responsible for the VMS staff performance management, coaching, career development, and training.
* Create and review system architectures and define key capabilities and performance requirements.
* Support trade studies, analyses, test programs, and flight testing as necessary to validate system architectures meet performance and certification requirements
* Participate in technical supplier management and support work scope definition and execution for flight deck, flight controls, and subsystems
* Support design reviews throughout the different phases of development, certification, and production readiness
* Ensure the VMS design and all associated design and verification artifacts demonstrate compliance to applicable certification requirements.
* Understand Vehicle Management System (VMS) input signal processing, redundancy management, system monitoring and control
* Provide guidance to Flight Control System components hardware and software system-level verification and validation testing including hardware design, integration, and qualification
* Perform VMS hardware root-cause analysis and support VMS integration anomaly root cause analysis
* Understand aerospace data buses such as 1553, ARINC 429, 1394, etc.
* Work with a variety of airplane analog sensors (Linear Variable Differential Transformers (LVDT), pressure sensors, proximity sensors, etc.)

**Required Qualifications:**

* Bachelor's, Master's or Doctorate of Science degree in a Science, Technology, Engineering or Mathematics (STEM) discipline with a minimum of 15 years' experience in VMS design of aircraft vehicle management systems
* 5+ years experience in a technical leadership and supervisory position with direct engineering reports.
* This candidate must have prior experience playing a key role within a FBW development program.
* Has previously been deeply involved in the development of a FBW flight control system - rotorcraft or tilt rotor experience preferred.
* Experience with development and verification of safety-critical real-time integrated avionics hardware/software systems for aviation, spacecraft, or other similar high integrity platforms
* Experience with: 14 CFR Part 23 or 25 Certification, ARP-4754, DO-254, DO-178
* Expert in flight critical systems and redundant architecture designs
* Experience with Vehicle Management Systems (VMS) integration on flight hardware and full-lifecycle development.

**Preferred Qualifications:**

* Experience with aircraft ground and flight testing
* Knowledge of HIRF, lightning, environmental impact on VMS systems
* Experience in analog and digital circuit design and analysis
* Technical leadership experience in small and agile R&D teams
* Ideally the candidate has worked through the certification process and has working-level familiarity with both the design and validation stages of a certification program, including but not limited to: requirements definition; program planning; developing qualification test plans; and conducting qualification testing for the FAA or FAA-appointed designees. This includes working closely with company or external DERs, FAA DARs and generating high-quality artifacts to support the certification program.