



# AIRWORTHINESS



*DECADES OF DISCIPLINE.*  
**DESIGNED FOR WHAT'S NEXT.**

## Comprehensive Life-Cycle Airworthiness Support for DoD Aviation

*Avion Solutions delivers full-spectrum airworthiness expertise built on more than 30 years of disciplined engineering, program execution, and direct support to Army and DoD aviation. Our engineers provide end-to-end life-cycle airworthiness services that assure military aircraft are safe, certifiable, and ready for mission execution across the operational lifecycle.*

### Design Airworthiness

Avion's engineering teams support qualification of aircraft designs to military airworthiness standards—bridging test data, analytical results, and demonstrations into verified compliance. We:

- Develop and execute **Airworthiness Qualification Plans**
- Define **military airworthiness criteria** and corresponding **method of compliance**
- Assess and validate **airworthiness artifacts** from test, analysis, and demonstration
- Deliver formal findings through **Airworthiness Releases, Qualification Status Reports, and Statements of Airworthiness Qualification**

### Continuing Airworthiness Support

Maintaining an aircraft's certified condition is a continuous process. Avion assures safe operation throughout the life cycle by:

- Evaluating **vendor qualifications** to sustain sources of supply
- Investigating field-revealed deficiencies via **Quality Deficiency Reports (QDRs)**
- Reviewing **maintenance and overhaul processes** for **Critical Safety Items (CSIs)**
- Updating and managing **aircraft maintenance manuals** to reflect approved configurations

### Production Airworthiness

Our production oversight assures every aircraft delivered meets its original qualified design and type qualification.

Avion engineers:

- Assess and approve **vendor and source qualifications** for production parts
- Support **Material Review Boards** to resolve non-conformances
- Evaluate **deviations and waivers** during manufacture to assure continued compliance



## Airworthiness Technology Expertise

- **Propulsion**
  - Drive System
  - Turbine Engine Design and
  - Fuels, Lube and Hydraulics
  - Engine/Airframe integration
  - Power Accessories
- **Mission Systems**
  - Electrical Power Supply and Distribution
  - Electromagnetic Compatibility/Interference
  - Comm/NAV/Surveillance systems Integration and Operation
  - Weapons and Sensor integration
  - Environmental
- **Aeromechanics**
  - Vehicle Aerodynamics
  - Vehicle and subsystem Dynamics
  - Health Monitoring Systems
  - Mass Properties
- **Maintenance Engineering**
  - Aircraft Maintenance and Overhaul Instructions (TM and DMWR)
  - New Repair Development
- **Spare Parts Sustainment**
  - Supply Chain Resilience - New Spares and Overhaul Management
  - Quality Audits
  - CSI Management
- **Software Airworthiness**
  - Software functionality Design Assurance Levels
  - Software Safety

## Work With Us

Avion doesn't just support airworthiness—we elevate it. With more than three decades of disciplined engineering expertise, Avion delivers full-spectrum airworthiness solutions that keep warfighters safe and fleets mission-ready. Our teams apply rigorous analysis, advanced modeling, and deep platform knowledge to anticipate risks, streamline approvals, and assure continued airworthiness across the entire lifecycle.

From design and integration to continuing and production airworthiness, Avion is your trusted partner for compliant, reliable, and resilient aviation systems. Together, we help you maintain readiness, reduce risk, and accelerate mission success.

## Aircraft Systems Supported

Avion Solutions provides comprehensive airworthiness and engineering support across the full spectrum of Army and allied aviation platforms. Our experience spans legacy, modernized, and special mission aircraft — ensuring operational safety, mission effectiveness, and lifecycle readiness.

### U.S. Army Fleet

Avion's engineers and analysts support the complete range of Army rotary and fixed-wing systems, including:

UH-60L/M Black Hawk • AH-64D/E Apache • CH-47F Chinook • C-12 Huron • C-20 Gulfstream • C-37 Gulfstream • UC-35 Cessna • ARL-M • MARSS • MQ-1C Gray Eagle • RQ-7B Shadow

### Special Operations Aviation

Our team delivers airworthiness, configuration, and sustainment support to elite special operations platforms, including: MH-47G Chinook • MH-60M Black Hawk

### Foreign Military Sales (FMS)

Avion supports international partners and security assistance programs with qualification, sustainment, and engineering support for: Iraqi 407 • UH-1 • AH-1 • Mi-17 • MD-530F/G

## Customers Supported

- Army PMOs (Apache, Cargo, Utility, Uncrewed Aircraft Systems, Future Long Range Assault Aircraft, Fixed Wing, Aviation Turbine Engine)
- Technology Applications Project Office
- Aviation and Missile Center (AvMC) Systems Readiness Directorate (SRD) (Propulsion, Aeromechanics, Mission Equipment, Software Airworthiness, Maintenance, Sustainment, Quality Management, Utility, Apache, Aviation Systems and Cargo, UAS, FVL)
- Foreign Military Sales aircraft (Iraqi 407 • UH-1 • AH-1 • Mi-17 • MD-530F/G)



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