

# **AIRCRAFT**

# UPGRADE AND MODIFICATION

Aircraft are engineered for long-term durability and operational readiness. To sustain optimal performance over time, it is essential not only to adhere to rigorous maintenance standards but also to implement continuous upgrades to avionics and mission-critical systems. These enhancements are vital for mitigating obsolescence and ensuring alignment with evolving tactical and operational requirements.





## **CAPABILITIES**

RV Connex delivers full-spectrum refurbishment and capability upgrades tailored to evolving operational needs. We support platforms such as the PC-9, CT-4, RTAF-6, F-5, AU-23, and Alpha Jet. Our in-house mechanical and electrical A-Kit production ensures precision and integration accuracy. Every solution is tailored to mission demands, using validated technologies grounded in real-world performance.

### **SOLUTIONS:**

- Mechanical and Electrical A-Kit Production.
- Cockpit Modernization.
- Avionics and Mission Systems Upgrades.
- National Data Link and Secure Communications Integration.
- Radar System Integration.
- Weapons Systems Installation.
- Electrical Wiring and Harness Fabrication.
- Operational Flight Program (OFP) Development.

#### **SERVICES:**

- On-the-Job Training (OJT) Programs.
- Simulator Development and Integration.
- Test Pilot Services.
- Custom Air-to-Air and Air-to-Ground Data Link Solutions.
- Engineering Design and Airframe Modifications.
- Supply Chain Management and Logistics Support.
- Network and Information Security Solutions.





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# ENGINEERING STANDARDS FOR AIRCRAFT MODIFICATION & DESIGN

We design, test, and manufacture in accordance with internationally recognized aerospace and military standards, ensuring structural integrity, system compatibility, and mission readiness.

#### **GENERAL STANDARDS**

- JSSG-2006 Joint Service Specification Guide for Aircraft Structures.
- AS9100D (Compliant) Quality Management Systems for Aerospace and Defense.
- MIL-STD-810F Environmental Engineering Considerations and Laboratory Testing.
- MIL-STD-1472F/G Human Engineering Design Criteria.
- MIL-A-8865B Aircraft Strength and Rigidity Miscellaneous Loads.
- MIL-STD-8591 Airborne Stores, Suspension Equipment, and Aircraft-Store Interface (Carriage Phase).

#### STRUCTURAL DESIGN STANDARDS

- JSSG-2006 Aircraft Structural Design.
- MIL-STD-1587E Aerospace Material and Process Requirements.
- MIL-A-8865B Strength and Rigidity Standards.
- MIL-STD-8591 Store-Carriage Interface Requirements.

#### **ELECTRICAL DESIGN STANDARDS**

- SAE AS50881 Aerospace Wiring Systems.
- MIL-HDBK-83575 Wiring Harness Design for Space and Aerospace Vehicles.

### **MATERIAL & SURFACE FINISHING STANDARDS**

 MIL-STD-7179 – Protective Finishes, Coatings, and Sealants for Aerospace Systems.

## **AIRWORTHINESS & CERTIFICATION**

MIL-HDBK-516C – Airworthiness Certification Criteria.



# **CERTIFICATIONS & REGULATORY COMPLIANCE**

#### AIRWORTHINESS COMPLIANCE

- FAA FAR U.S. Federal Aviation Regulations.
- EASA CS European Aviation Safety Agency Certification Specifications.
- MIL-HDBK-516 Military Airworthiness Certification Criteria.

#### **OUALITY MANAGEMENT SYSTEMS**

- ISO 9001:2015 Certified for UAV Engine Repair & Maintenance.
- AS9100D Certified for Cable Harness Production, Mechanical & Electrical Design.
- IPC/WHMA-A-620 Acceptability for Cable and Wire Harness Assemblies.
- IPC-A-610 Acceptability of Electronic Assemblies.

#### **PRODUCTION & DEVELOPMENT STANDARDS**

- CMMI Capability Maturity Model Integration for Software Development.
- NDT Level I/II Non-Destructive Testing for Mechanical Components.
  - Including Liquid Penetrant Testing (Level II).







Redefined Flight Capabilities Through Precision Upgrades and Tailored Solutions





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Disclaimer: In keeping with our policy on continuous product improvement, all specifications are subject to change at any time.

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