Acra KAM-500 + PRODDIA™ AERO Integrated Health Monitoring Solution

CURTISS–WRIGHT

Curtiss-Wright provides fully integrated, for cost-effective solutions for structural health monitoring (SHM) and integrated vehicle health management (iVHM) programs through a partnership with Critical Materials.

Curtiss-Wright is an international leader in airborne data acquisition hardware and turn-key solutions. The Acra KAM-500 platform has been providing data to aircraft structural health programs for 20+ years and continues to adapt to ever evolving requirements through the development of new modular interfaces. Acra KAM-500 installations remain in-place for many years with continuous operation proven for 15 years.

Critical Materials is a leader in the field of structural health analysis for the aerospace industry. PRODDIA® AERO is an innovative SHM and management platform that allows for the health assessment and monitoring of small and large aircraft fleets in real-time.

- Multiple analysis packages can be implemented using the same sensor data, e.g. Fatigue Life Tracking, SHM (defect detection), HUMS (assessment reports), iVHM (combined analysis and assessment)
- Provides advanced diagnostics & prognostics of structural status
- PRODDIA® AERO Workbench provides intuitive visualization and exploration of asset and fleet health
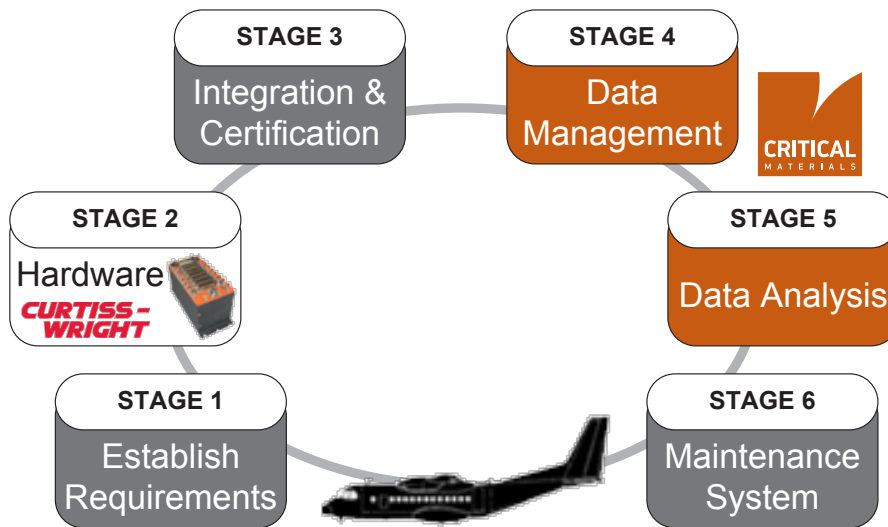- Scalable cloud based architecture

KAM-500

- 100+ plug-in interface modules
- Qualified for aerospace use under MIL-STD and DO-160 environmental standards
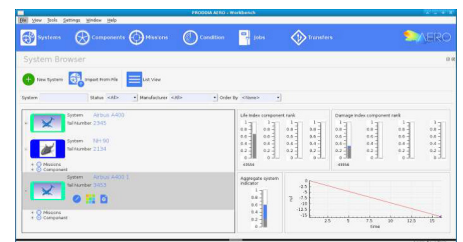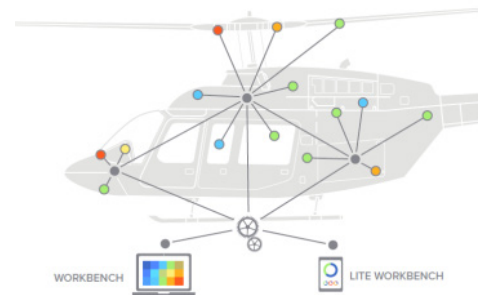- Civil aircraft installations supported through DO-254/178
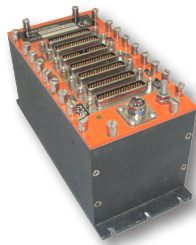
PRODDIA

- Cloud fleet data management
- Structural Health Monitoring (SHM)
- Integrated Vehicle Health Management (iVHM)
- Optimization for minimal number of necessary sensors

STAGE 1 — Establish Requirements
STAGE 2 — Hardware — CURTISS–WRIGHT
STAGE 3 — Integration & Certification
STAGE 4 — Data Management — CRITICAL MATERIALS
STAGE 5 — Data Analysis
STAGE 6 — Maintenance System

Integrated Health Monitoring Solution

Data Management and Analysis