

# ProHM+

ProHM+ Aerospace Safety Engineering Intelligence

Pro HM+ is a next-generation AI-powered platform designed to elevate the safety, efficiency, and performance of aircraft operations. Acting as an intelligent co-pilot, it serves both defense and commercial aviation fleets by seamlessly integrating with avionics systems to monitor aircraft condition, optimize flight performance, and ensure regulatory compliance across operations.

## Key Modules



### Aircraft Health Monitoring (AHM)

**Function:** Continuously supervises onboard systems such as engines, hydraulics, avionics, and electrical components.

- ✓ Detects early signs of engine deterioration



### Aircraft Performance Monitoring (APM)

**Function:** Analyses collected flight data altitude, Exhaust gas temperature (EGT), Fuel Flow, and other sensor inputs evaluate and optimize aircraft performance over time.

- ✓ Employs machine learning for predictive diagnostics
- ✓ Recommends proactive maintenance actions to avoid faults
- ✓ Minimizes unscheduled downtime and enhances fleet readiness

- ✓ AI models analyse historical and in-flight patterns to suggest fuel-saving flight behaviours
- ✓ Benchmarks performance based on aircraft type and usage profiles
- ✓ Generates efficiency metrics aligned with environmental standards



## Flight Operations Quality Assurance (FOQA)

**Function:** Consolidates data from flight recorders, sensors, and logs to monitor safety and procedural adherence.

- ✓ Automates post-flight evaluations and anomaly detection
- ✓ Analyses critical flight phases and flight exceedance
- ✓ Produces in-depth safety and compliance reports



## Fuel Analytics

**Function:** Tracks fuel usage trends, identifies inefficiencies, and supports compliance with global emissions regulations.

- ✓ Monitors fuel burn rates and usage patterns across flights
- ✓ Uses historical data to fine-tune fueling strategies
- ✓ Supports emissions reporting aligned with CORSIA and ICAO norms

Real-World Impact

## FOQA Success Story

FOQA data identified recurring delays in flap deployment and landing gear extension during final approach, leading to targeted pilot training that significantly reduced unstable approach occurrences and improved landing consistency across the fleet.

## Why ProHM+ Stands Out



### Seamless Integration & Customization

Can be seamlessly integrated with existing servers and adapts to user-specific needs for a smooth, tailored experience.



### Military-Grade Accuracy

Designed for defense aviation, with proven reliability across commercial use cases.



## Modular Deployment

Designed for defense aviation,  
with proven reliability across  
commercial use cases.



## AI That Learns

Continuously improves through  
data feedback loops, enhancing  
precision and decision-making.



## Regulatory Support

Complies with FAA, EASA, and  
ICAO safety and emissions  
guidelines.