



OPERATIONAL PERFORMANCE

Airplane Health Management



LIFECYCLE
SOLUTIONS



IMPROVED OPERATIONAL DECISION MAKING

Boeing delivers LIFECYCLE SOLUTIONS, products, services, and support that will help you achieve success and maximize the value of your Boeing fleet through its life. And Boeing has a set of LIFECYCLE SOLUTIONS focused on operational performance that can help your maintenance, engineering, and flight operations personnel perform their work in the most effective manner possible, increasing efficiency and profitability.

As a Boeing LIFECYCLE SOLUTION, **Airplane Health Management (AHM)** is focused on improving your operational performance by turning available airplane data into useful, actionable information. With the AHM system of monitoring, collecting, and analyzing available airplane data, your engineering and maintenance staff will be able to make timely, economical, and repeatable maintenance decisions that will help improve your fleet operation.

HARNESSING THE POWER OF INFORMATION



AHM will enable you to improve your operational performance and reduce delays, cancellations, air turnbacks, and diversions.

AHM is made possible by Boeing's detailed design knowledge and in-service experience as well as our investment in the systems, applications, and infrastructure required to make use of this information.

How AHM works.

- AHM collects data in real time from the flying fleet and makes it available to ground operations.
- Alerts and notifications are delivered to your personnel through the Internet, fax, PDAs, e-mail, and pager services.
- Teams across your operations access and process information with Boeing hosted tools on the MyBoeingFleet.com Web portal.
- Your teams receive customizable information packages based on their information needs, selected prioritization, and urgency.

- You make fix-or-fly and maintenance decisions with better information and in a fraction of the time with remote monitoring, collection of data, and analysis of information.

Automated decision support increases efficiencies and performance across your enterprise.

You choose the decision support you need. AHM has three types of decision support available – Real-Time Fault Management, Performance Monitoring, and Custom Alerting and Analysis.



Real-Time Fault Management – With the airplane still in route, in-flight faults are communicated to the ground and diagnosed, allowing you to make real-time operational decisions regarding maintenance and deploy the necessary people, parts, and equipment to mitigate the issue.

Performance Monitoring – To support your airplane fuel efficiency initiatives and optimize your flight planning, AHM analyzes and trends airplane cruise performance data. This includes prioritized information regarding fuel efficiency, emission levels, and other performance factors.

Custom Alerting and Analysis – Customer-specified monitoring and alerting of any data transmitted from the airplane to address developing airplane system issues. AHM automatically monitors, collects, and transmits service levels using ACARS through the installed Aircraft Condition Monitoring System (ACMS). This includes tire pressure, oxygen pressure, hydraulic fluid, APU, and engine oil levels. Consumption trends are tracked to facilitate maintenance planning, calculate optimal service intervals, or provide supplemental information to your ETOPS program.

All three of these AHM decision support tools can interface with engine OEM health monitoring services to provide Engine Condition Monitoring Alerts by linking the Web-based systems and enabling your personnel to see engine-OEM-generated alerts alongside AHM-generated information.

- Shortens or eliminates delays
- Enhances first-time fix effectiveness
- Reduces schedule interruptions
- Identifies airplane and fleet fuel efficiency trends
- Enables optimal flight planning
- Alerts on developing system issues
- Enables remote monitoring
- Minimizes maintenance actions
- Enhances ETOPS program
- Creates an integrated Web-based health monitoring environment

You choose your priorities and receive advance notice of issues.

AHM decision support tools enable your teams to customize the information that is of the most value to their work and make forward-looking decisions regarding maintenance.



Prioritization – You determine your informational needs and priorities based on Minimum Equipment List (MEL) relief, economic impact, and other performance factors to determine your best course of action.

Prognostics – You are able to forecast and fix problems before failure. Advance notice of problems help turn unscheduled maintenance into scheduled maintenance.

- **Increases operational effectiveness**
- **Empowers your personnel**

- **Eliminates many unnecessary failures**
- **Reduces unscheduled maintenance**

You can enjoy the benefits of AHM without large capital expense. AHM is billed per flight-hour or annually by airplane depending on the level of support. Boeing undertakes responsibility for the digital tools and delivery of information. You reap the benefits of improved operational performance.





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