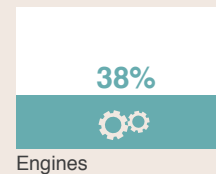
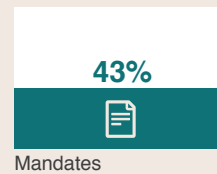
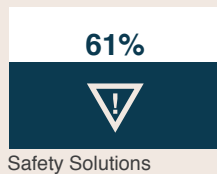


Top Three Opportunities for Aviation Aftermarket Solutions

Aircraft OEMs and owners must capitalize on every advantage that is available when it comes to maximizing critical needs of operations such as performance, readiness, mission capabilities and cost efficiency. Learn about three key areas where equipment developments and technology advances are vital, and the forward-fit and aftermarket solutions that can help.

Most Important upgrade opportunities¹



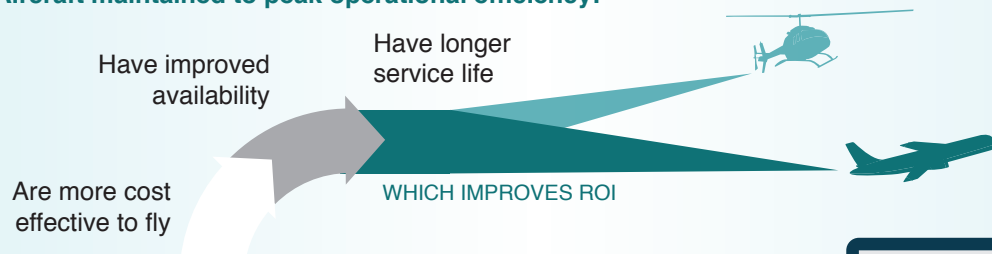
1 OPERATIONAL EFFICIENCY SYSTEMS

Condition-Based Monitoring

HOW IT WORKS:

Advances the way to detect & address emerging aircraft problems via real time monitoring.

Aircraft maintained to peak operational efficiency:



SOLUTION: Rethink Maintenance with HUMS (Health and Usage Monitoring System)

Eliminate the need for a physical connection for data retrieval



Benefits of the latest diagnostic reporting technologies include:

Transitioning maintenance from time-based schedules to work-based schedules on evidence of need

Identifying potentially serious mechanical and structural conditions as they occur and fixing them before they become costly problems

Minimizing the need to stock large parts inventories since repairs are handled on evidence of need

Reducing aircraft downtime and increasing mission readiness from access to more diagnostic data

2

MANDATE AND SAFETY COMPLIANCE

Here are four key mandates and the technologies they require to help ensure the safety and reliability of air travel.

Mandate 1: Texting



HOW IT WORKS:

This is a digital technology that, in full-flight phase, will generate automatic text messages via data link between air traffic control (ATC) and pilots flying above FL285 (28,500 feet).

Benefits of Texting Communications:

- Helps prevent misunderstandings of verbal instructions
- Reduces congestion in VHF transmissions
- Relieves air traffic controllers from routine tasks that take up a significant part of their workload



SOLUTION: Use FANS technology (Future Air Navigation System)

FANS technology further aids in texting via:

- Improved routing
- Automatic flight-plan adjustments
- More accurate aircraft position and velocity data

Mandate 2: Less Congestion

HOW IT WORKS:

Automation of tasks increases the amount of traffic ATC can handle, resulting in a reduction of takeoff and landing delays.

SOLUTION: Use FANS technology

(Future Air Navigation System) US: FANS 1/A+, Europe: Link 2000+

Benefits of FANS technology:



50% Automated
Half of data messages to aircraft will be automated, increasing the amount of traffic that ATC handles



Airspace capacity **is tripled**



Navigation costs **reduced by 50%**

Mandate 3: Radar Replacement

HOW IT WORKS:

Aircraft can acquire their position and velocity from the Global Navigation Satellite and broadcast the data to ground stations and other aircraft within range.

SOULTION: Use ADS-B technology (Automatic Dependent Surveillance-Broadcast)

Benefits of ADS-B technology:



More accurate than radar



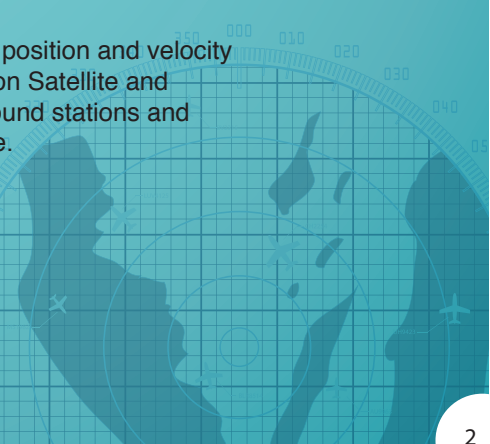
Improves flight monitoring

in regions where there is little or no radar coverage



Safer for helicopters

to alert each other to their presence (especially those flying to/from offshore oil/gas rigs)



Mandate 4: Improving Collision Avoidance



HOW IT WORKS:
Reverses and simplifies commands automatically broadcast to pilots to prevent mid-air collisions

SOLUTION: Update TCAS software to Version 7.1
(Traffic Alert Collision Avoidance System)



3 ENGINES & PROPULSION SYSTEMS

Prime Retrofit Candidates



HOW IT WORKS:
Determine if your helicopter is versatile enough to haul heavy loads, generate greater lift and perform in hot, low-density air.

SOLUTION: Retrofit with HTS900 Turbine Engine

- Dual-use technology (commercial and defense)
- Powerful climb to 7,000ft
- High power-to-weight ratio
- Low on-condition maintenance

To learn more about Aviation Aftermarket Solutions
read this **FREE** eBook:

<http://aviationweek.com/aftermarket-solutions>

Sources:

Top Three Opportunities for Aviation Aftermarket Solutions eBook, Penton Aviation, sponsored by Honeywell Aerospace

1- Commercial Sector Aviation RMU (retrofit, modification and upgrade) Study by AW&ST, sponsored by Honeywell Aerospace