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Symposium**

*AMCOM Panel
Talking Points*



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TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

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Zero Maintenance Aircraft



Current Sustainment fall short.

Desired Readiness

Application in multi-domain battle

Multi-tier maintenance footprint

Affordability

Zero Maintenance is not a number.

Maintenance actions would no longer affect availability of the platform to the fight.

Platform must operate for extended periods of time in extreme environments.

Science of Integrated Sustainment

By Holistic Design

Of the Vehicle

AND

its Use and Care

Ultra durable and reliable components

Aircraft Health State Awareness
(Diagnostics and Prognostics)

Tolerant, adaptable and redundant systems, e.g. flight controls, structures, propulsion/drivetrain

Maintenance processes

across DOTLmPF-P.



Zero Maintenance Effects



With Zero Maintenance Aircraft

1. Rapid deployment and readiness for near-peer threat in multi-domain battle space
2. Increases Availability
3. Real time decision making analytics
4. Agile maintenance construct reducing logistics tail
5. Reduces overall O&S costs

Integrated Sustainment Implementation

Major shift from 3 level paradigm

CHALLENGES

Prioritizing sustainment in the requirements and specifications

Increased data requirements in development and in operation

Changing roles for prime, long term maintenance contracts and partnerships

Transition requires maintaining two different generations of sustainment constructs



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FACER – Zero Maintenance



- Paint picture relating rotorcraft to cars with just gas and oil for the first 60,000 miles. Use NASCAR high demand environment/pit stop.
- Current/Future fight, 2/3 level maintenance or fwd maintenance activities not acceptable. Need platforms to survive unsustained for extended periods in challenging/extreme environments
- Emerging Capabilities – Ultra-Reliable System Level Design, Health Awareness (data analytics/prognostics), tolerant platforms, future sustainment concepts
- Back drive from key metrics: Availability, Maintenance Free Operating Period, Affordability
- Technology enablers – integrated durable, tolerant, reliable systems at aircraft level, adaptive systems/controls, holistic health awareness
- S&T alone doesn't cut it, across DOTmLPF-P