



กรมช่างอากาศยาน
Directorate Of Aeronautical Engineering

Aircraft Maintenance in the Future

Test & Tutorial

เป็นองค์กรที่มุ่งเน้นการพัฒนากระบวนการซ่อมสร้างอากาศยาน ให้มีความปลอดภัยและเป็นมาตรฐานสากล



แบบทดสอบ FUTURE AIRCRAFT MAINTENANCE

1. What is the distinctive difference between "3 - Level Maintenance" and "2 - Level Maintenance" ?

- a. 2 - Level Maintenance combines O-Level and H-Level together.
- b. 2 - Level Maintenance combines O and H-Level within a Wing.
- c. 2 - Level Maintenance's objective is "Lean Logistics".
- d. All of the above a, b and c are correct.

2. Scheduled inspections intervals by calendar maintenance program are based on ?

- a. corrosion
- b. fatigue
- c. deterioration
- d. wear and tear

3. Scheduled inspections intervals by accumulated flying hours maintenance program are based on ?

- a. corrosion
- b. fatigue
- c. deterioration
- d. wear and tear

4. DAE Quality Assurance use AEM (Aeronautical Engineering Manual) as a bible. The DAE AEM is equivalent to ?

- a. T.O. 00-20-XX Series
- b. EN9110
- c. AS9110
- d. b and c are correct.

5. Future aircraft maintenance concept would be ?

- a. 2 - Level Maintenance; 1st Level = Preventive; 2nd Level = Predictive; 3rd Level Corrective.
- b. 2 - Level Maintenance; 1st Level = Preventive and Restorative; 2nd Level = Predictive.
- c. 2 - Level Maintenance; 1st Level = Preventive and Predictive; 2nd Level = Restorative.
- d. 2 - Level Maintenance; 1st Level = Preventive; 2nd Level = Predictive and Restorative.

6. Preventive aircraft maintenance in the future would comprise ?

- a. Aircraft servicing, OC (On Condition), CM (Condition Monitoring), Ops. Check and no hard time (no TCI).
- b. Aircraft servicing, OC (On Condition), CM (Condition Monitoring), Ops. Check and hard time (TCI).
- c. Aircraft servicing, OC (On Condition), CM (Condition Monitoring), Ops. Check and depot maintenance.
- d. Aircraft servicing, OC (On Condition), CM (Condition Monitoring), Ops. Check and PDM.

7. Predictive aircraft maintenance in the future would comprise ?

- a. RCM (Reliability Centered Maintenance) forecasting the date of functional failure (point F) in the P-F Curve (Potential - Functional Failure Curve) of a component and issue EO (Engineering Order) to change that component within 1 month before point F.
- b. RCM (Reliability Centered Maintenance) forecasting the date of functional failure (point F) in the P-F Curve (Potential - Functional Failure Curve) of a component and issue EO (Engineering Order) to change that component within 2 months before point F.
- c. RCM (Reliability Centered Maintenance) forecasting the date of functional failure (point F) in the P-F Curve (Potential - Functional Failure Curve) of a component and issue EO (Engineering Order) to change that component within 1 week before point F.
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8. Restorative component maintenance (or depot level) in the future would be ?

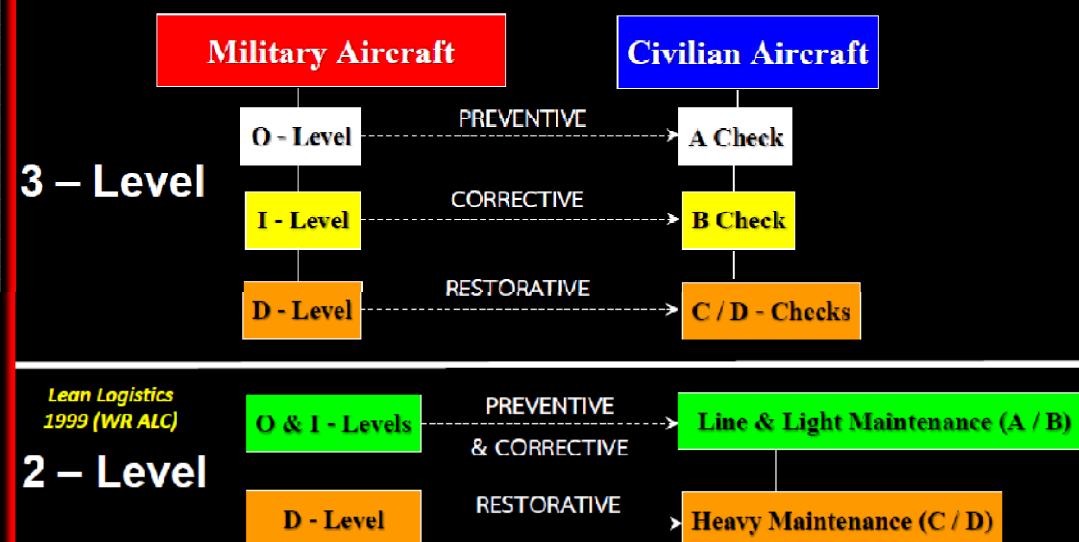
- a. performed by the air operator.
- b. performed by MRO providers.
- c. performed by MRO suppliers.
- d. performed by in house capability.



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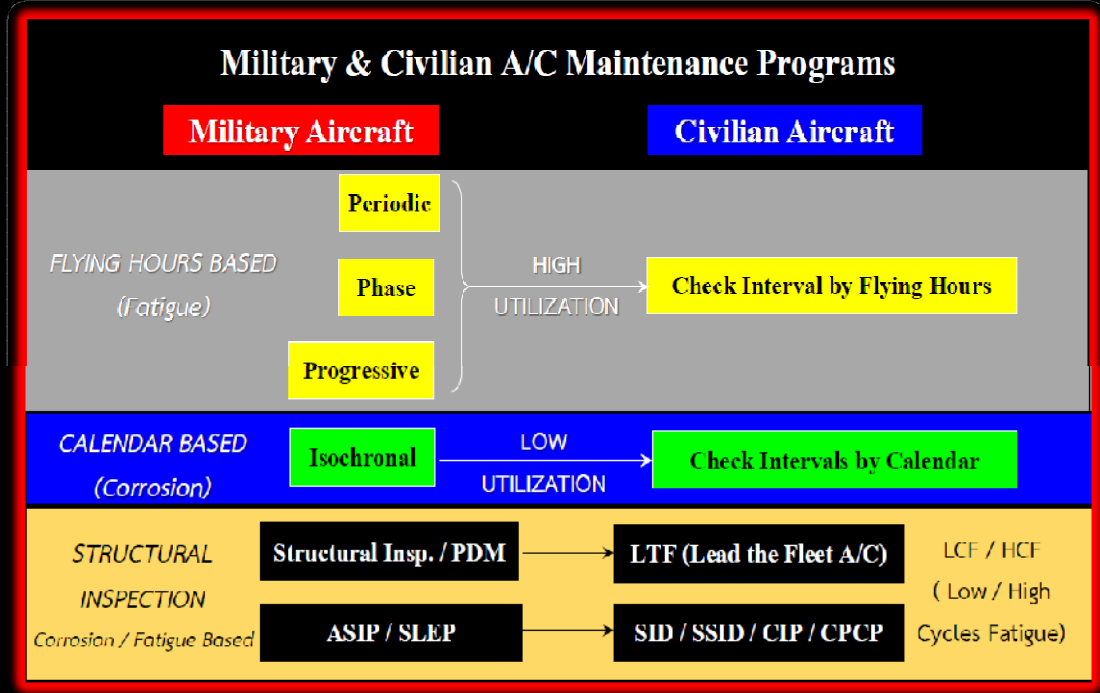
Military & Civilian Aircraft Maintenance Levels





2. Scheduled inspections intervals by calendar maintenance program are based on ?

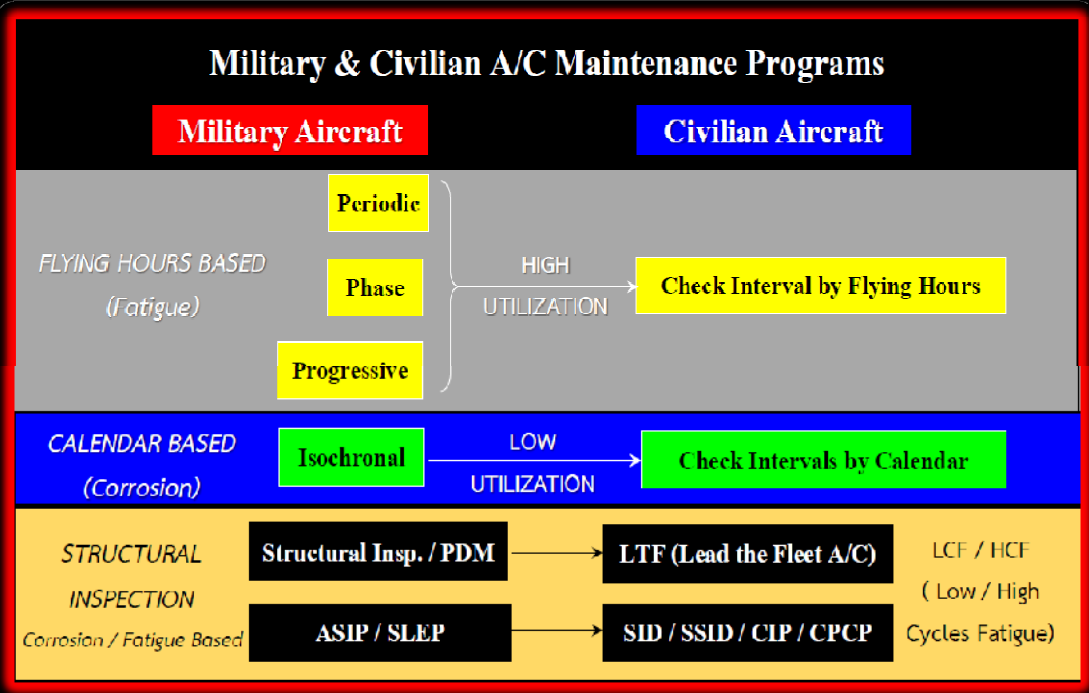
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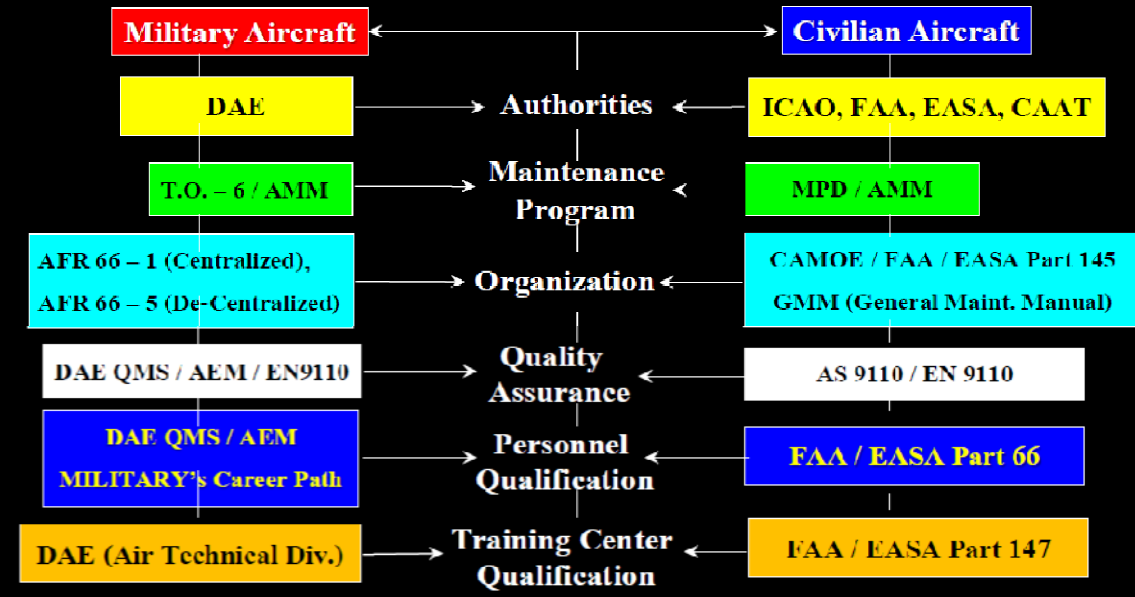




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Military & Civilian Airworthiness



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“2 – Level” A/C Maintenance

1st Level: A/C Operator

New Generation Aircraft Operator

Preventive Maintenance

- Scheduled (by FH or by Calendar).
- Phase Insp. or ISO Insp.
- Preventive Tasks = A/C Servicing, OC, CM, Ops. Chk. with no “TCI”.
- “NO” Unscheduled Maintenance.
- “Big Cost Saving” / More Economic.

Predictive Maintenance

- RCM (Reliability Centered Maintenance) shall forecast and issue “Engineering Order (EO)” to change components which would fail within 2 weeks.
- The “EO” shall be scheduled at the next convenience preventive maintenance.

2nd Level: MROs

Restorative Maintenance

MRO Providers shall repair / overhaul components & MRO Suppliers shall supply parts to A/C Operator.



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New Generation Aircraft Operator

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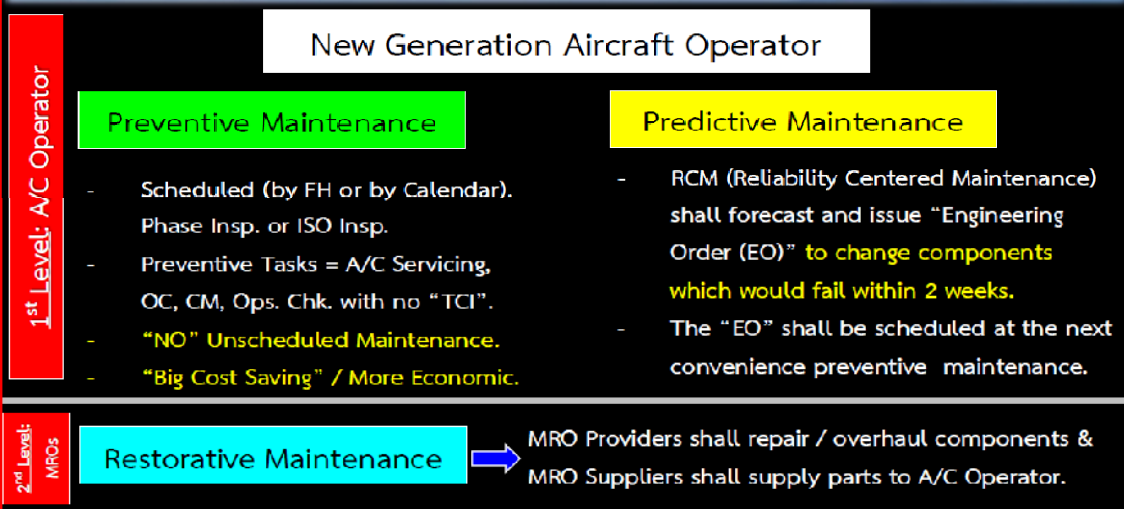


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