

Element Performance Inspection (EPI)

1.3.20 Engine Condition Monitoring (AW)

Purpose of this Element (Air Carrier's responsibility): To utilize engine data to detect deterioration at an early stage and allow for corrective action before safe operation is effected.

Objective (FAA responsibility):

To determine if the Air Carrier follows its policies, procedures, and controls for the Engine Condition Monitoring Program.

Specific Instructions for this EPI:

To accomplish this EPI the inspector shall familiarize himself/herself with the Air Carrier's Engine Condition Monitoring Program to include any unique requirements generated by the powerplant manufacturer or fleet differences.

The EPI may be accomplished where the Air Carrier collects samples, maintains records, and analyzes data. Particular attention should be taken to changes made to the program and program generated interval changes.

Related EPIs

- 1.1.1 Aircraft Airworthiness (AW)
- 1.2.2 Major Repairs and Alterations Records (AW)
- 1.2.3 Maintenance Log / Recording Requirements (AW)
- 1.2.5 Mechanical Reliability Reports (MRR) (AW)
- 1.3.1 Maintenance Program (AW)
- 1.3.2 Inspection Program (AW)
- 1.3.3 Maintenance Facility / Main Maintenance Base (AW)
- 1.3.6 AD Management (AW)
- 1.3.7 Outsource Organization (AW)
- 1.3.9 Engineering / Major Repairs and Alterations (AW)
- 1.3.11 Continuous Analysis and Surveillance (CAS) (AW)
- 1.3.15 Reliability Program (AW)
- 2.1.1 Manual Currency (AW / OP)
- 2.1.2 Content Consistency Across Manuals (AW / OP)
- 2.1.3 Distribution (Manuals) (AW / OP)
- 2.1.4 Availability (Manuals) (AW / OP)
- 5.1.8 Extended Range Operations with Two-Engine Airplanes (ETOPS) (AW)

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To meet this objective, the inspector will accomplish the following tasks (at the inspection locations where applicable):

1. Review the FAA Guidance included in the supplemental information section of this EPI.
2. Review the associated SAI, with emphasis on the Controls Attribute section.
3. Review the Air Carriers policies and procedures for Engine Condition Monitoring Program.
4. Discuss the Engine Condition Monitoring procedures with appropriate personnel.
5. Review appropriate records of the Engine Condition Monitoring Program.
6. Assess the results of the Engine Condition Monitoring Program.

To meet this objective, the inspector will answer the following questions:

1. Were the following performance measures met:

<i>1.1 The Air Carrier complied with the Engine Condition Monitoring provisions of their program.</i>	<input type="checkbox"/> YES	If no, explain:
	<input type="checkbox"/> NO	
<i>1.2 The Air Carrier's personnel are trained in accordance with its Engine Condition Monitoring Program.</i>	<input type="checkbox"/> YES	If no, explain:
	<input type="checkbox"/> NO	
<i>1.3 The Air Carrier audits the Engine Condition Monitoring Program to ensure policies and procedures are followed.</i>	<input type="checkbox"/> YES	If no, explain:
	<input type="checkbox"/> NO	
2. Were the Engine Condition Monitoring procedures followed?	<input type="checkbox"/> YES	If no, explain:
	<input type="checkbox"/> NO	
3. Were the Engine Condition Monitoring controls followed?	<input type="checkbox"/> YES	If no, explain:
	<input type="checkbox"/> NO	
4. Did records comply with the Air Carrier's Engine Condition Monitoring policies and procedures?	<input type="checkbox"/> YES	If no, explain:
	<input type="checkbox"/> NO	

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SUPPLEMENTAL INFORMATION

SRRs:

There are no Specific Regulatory Requirements for the Engine Condition Monitoring Program; however, each aircraft released to service is airworthy and has been properly maintained in accordance with the Air Carrier maintenance/inspection program for operation under this part (14 CFR 121.367(c)).

Other CFRs and FAA Guidance:

- 14 CFR 121.363 (a, b), “Responsibility for airworthiness.”
- 14 CFR 121.367 (c), “Maintenance, Preventive Maintenance and Alterations Program.”
- 14 CFR 121.373 (a), “Continuing analysis and surveillance.”
- FAA Order 8300.10, Vol. 2, Chap. 65, “Evaluate Continuing Analysis and Surveillance Program.”
- FAA Order 8300.10, Vol. 2, Chap. 66, “Reliability Program.”
- FAA Order 8300.10, Vol. 2, Chap. 82, “Evaluate ETOPS.”
- HBAW 95-06A, “Maintenance Programs for Aircraft Engines, Including Leased Engines, Used by Operators.”
- Refer to Advisory Circulars using a search engine (such as ATP Navigator or Summit).