CBT TNA – Boeing 737 NG (600/700/800/900) CFM56-7 Engine Run Up Training – Idle & High-Power Operations Theory

Course Overview

The BOEING 737-600/700/800/900 CFM56-7 Engine Run Up Training provides comprehensive training for engine run-up procedures on Boeing 737 aircraft equipped with CFM56-7 engines providing a comprehensive understanding of engine run-up procedures, roles, and expectations.

We stress the importance of reacting calmly, understanding the situation and impacts, and ensuring safety at all times and it includes familiarization with the flight deck, engine limits, and safety protocols.

Key topics include pre-run checks, the roles and responsibilities of the engineer, flight deck preparation, and detailed engine operation procedures.

The course emphasizes safety, proper communication, and thorough system checks to ensure successful engine run-ups at both idle and high-power settings.

The download checklist can be used as a reference checklist also for preparations and operations / emergency procedures.

Under course information we also have example checklist and approval procedure for reference – this is a reference only and would need consideration on an individual basis for each responsible issuing approval entity.

The online CBT is intended to address the theory elements only and the practical can be assessed in house, or in a simulator depending on your requirements. For simulation evaluation and practical training certificates please email info@oat.aero to further discuss options.

Course Contents

Flight Deck Familiarisation

- Control Panels Overview: Detailed descriptions of flight deck control panels, including light controls, APU and engine start controls, and indicators for engine performance.
- Indications and Fault Lights: Importance of understanding visual indications such as reverser indication, PMC faults, and probe heating. This ensures proper monitoring during engine run-ups.

Engine Limits

- Maximum and Minimum Parameters: Specific limits for engine start EGT, N1 and N2 speeds, oil pressure, and temperature. These parameters must be strictly adhered to for safe engine operation.
- Wind and Safety Zones: Guidelines on wind limits for engine operation and defining safety zones around the engine during different power settings. This is critical for ensuring safe distances are maintained.

Flight Deck Preparation

- Initial System Checks: Ensuring the flight deck systems are not in use before preparation. This step is essential to maintain control over the aircraft systems during the engine run-up along with roles and responsibilities.
- Enabling Systems: Gradually enabling required systems and checking their activation as expected. This process reduces risks and increases control.
- Communication and Safety: Verifying ground communications, checklist completion and the importance of evaluation for each test – what we do and when, what we might expect and how we will deal with it.

Engine Run Up

- Engine Start Procedures: Steps for starting engines, including ignition selection, monitoring N2 rotation, and observing critical indicators. Ensuring all safety checks are complete before initiating the start.
- Handling Abnormal Events: Procedures for dealing with issues such as starter engagement, fuel filter bypass, and recognizing abnormal engine behaviour. Guidelines on how to manage these situations effectively.

Course Duration

This course is intended to be a learning course with **6-8 learning hours**.

This course covers only **theoretical knowledge** and while picture and video might be used as required it shall not be intended for practical assessment or instruction.

Regulation Specification Course Taught to:

- EASA APPENDICES TO ANNEX III (Part-66) Level III (3)
- UK APPENDICES TO ANNEX III (Part-66) Level III (3)
- ATA Specification 104 Level IV (4)

Downloads

Engine ground run guide covering preparation, operation, emergency procedures.

Examination & Content Evaluation

Online Questions are based on modular learning and shall be presented following completion of a module – it shall be possible to progress modules without completing the associated questions although no certificate or course completion will be considered without all module questions accomplished to a minimum **pass rate of 75%**.

Queries and concerns on examination material shall only be addressed by examination manager.