

**SAFETY CIRCULAR 2021-03**  
**Issue 01**

Date of Issue: - March 08, 2021

Subject: - Requirements for B737 MAX return to service (RTS)

Reference: - The Civil Aviation Authority of the Sultanate of Oman issued statement on 12<sup>th</sup> March 2019 on Boeing 737MAX aircraft suspension.

**Background:**

Following the accidents of Lion Air and Ethiopian Airlines Boeing Model 737-8 (MAX) aircraft on 29<sup>th</sup> October 2018 and 10<sup>th</sup> March 2019 respectively. The CAA, Sultanate of Oman, in the interest of safety, had prohibited the operation of Boeing B737-8-9 (B737MAX), from operating in the Oman airspace since 12<sup>th</sup> March 2019.

The investigation disclosed that the B737MAX design has been central to the probable causes of the two accidents, apart from other contributory factors.

The State of Design (FAA) is working with numerous National Aviation Authorities including EASA, TCCA and ANAC to recertify B737MAX to ensure its safe RTS.

This Safety Circular is issued to mandate the CAA, Sultanate of Oman, requirements to address the unsafe conditions identified in B737 MAX prior to its RTS and Operations in the Oman Airspace.

Note: This Safety Circular supersedes all other correspondences regarding 737MAX aircraft.

**B737 MAX RTS REQUIREMENTS:**

The operations of B737 MAX in Oman airspace shall not be permitted unless the following requirements are met:

**A. For Omani Operators:**

**1) The operator shall:**

- i. Provide the CAA with a return to service plan managed under their SMS to demonstrate and support safe return to service of their 737 MAX;
- ii. Comply with the technical requirements issued by the State of Design (FAA) listed in Appendix 1, TC Holder RTS mandatory maintenance requirements and CAA specific requirements listed in Appendix 2 for each aircraft serial number;
- iii. Provide the CAA with a statement of compliance with this SAFETY CIRCULAR signed by the Accountable Manager or his designated representative for each aircraft serial number;
- iv. Use SMS processes to identify hazards and adopt appropriate mitigation strategies related to RTS of 737 MAX including additional operational requirements such as limitations conditions on crew composition, destinations to operate from/to, maintenance arrangements, maintenance requirements, additional independent inspections, routes to fly, special operations (e.g. ETOPS, HUD) and aerodromes;
- v. Acquire, in a timely manner, necessary CAA's operational and airworthiness approvals such as flight crew training, flight simulator qualification, Maintenance facilities approval, AMS, C of A and MEL.
- vi. Submission of amended operations manual.
- vii. Ensure all the cabin crew has to be current on the type.

- 2) The operator shall also develop a strategy on how to handle and monitor differences between FAA and EASA 737 MAX RTS AD's (for example but not limited to RNP AR APH, Pilot Training, Full Flight Simulators, AFM and "stick shaker" CB pulling). The strategy may include increased pilot awareness, enhanced pilot's feedback/reporting and FDM enhancement.
- 3) For the purpose of conducting the Operational Readiness Flight (ORF) required by the FAA AD, the operator shall apply for a flight permit as per CAA CAR 21 Subpart P.
- 4) The operator shall submit to the CAA a CD containing all RTS required documentations including rectification of defects found during the ORF - if any - and copy of the certificate of release to service.

**B. For Foreign Operators:**

The operator shall provide the CAA with a compliance statement from their respective National Aviation Authority (NAA) to certify that the operation of B737MAX aircraft is in compliance with the following: -

1. Implement all elements in FAA ADs including state of registry requirements, for Europe Union registered aircraft all elements based on EASA Ads;
2. Ensure all pilot undergone RTS training contained in FSB report;
3. Evidence that all pilots have undergone the RTS training required by the State of Registry to be carried by crew;
4. Maintenance Release to service of aircraft RTS must be on board of the aircraft for inspection;
5. If the national Civil Aviation Authority of the state of the registry has issued any specific release to the aircraft must be on board;
6. Safety Analysis report based on SMS principles of the aircraft operations into the Sultanate of Oman to be on board aircraft;
7. The CAA reserve the right to conduct ramp inspections.

**CONTACT: -**

CAA Flight Safety department for further instructions or guidance.

Foreign operators contact: Director of Flight Safety email: [shadiya@caa.gov.om](mailto:shadiya@caa.gov.om)



**Salim Hamed Said Al Husaini**

**Acting Director General of Civil Aviation Regulation**

### Appendix 1: FAA Requirements:

The following FAA requirements are mandatory for RTS of B737Max, once issued by the FAA:

- a) Design changes:
  - 1) Core elements of the Main Airplane FAA AD 2020-24-02:
    - a) Installation/Verification of Flight Control Computer (FCC) Operational Program Software (OPS)
    - b) Installation/Verification, of Max Display System (MDS) Software, removal of INOP markers
    - c) Airplane Flight manual (AFM) Revisions
    - d) Use of latest FAA published MMEL for MEL update
    - e) Minimum Equipment List (MEL) Provisions for Inoperative Flight Control System Functions
    - f) Installation/Verification of MAX Display System (MDS) Software, Removal of INOP Markers
    - g) Horizontal Stabilizer Trim Wire Bundle Routing Change
    - h) AOA Sensor System Test and calibration
    - i) Operational Readiness Flight
    - j) Special Flight Permit
  - 2) Engine FAA AD 2020-06-01; and
  - 3) Engine Pylon EMI FAA AD 2020-11-12; and
  - 4) Kathon Fuel Additive FAA AD 2020-14-09; and
  - 5) Fuel Tank Entry for FOD, Corrosion, Microbial Growth and Service letters 7370SL-107, 737-SL-28-121, 737-SL-28-122 as applicable; and
- b) Pilot Training Notice; Pilot training will be evaluated by the Joint Operations Evaluation Board (JOEB) and published in the Flight Standardization Board (FSB) Report:
  - 1) Level A Ground Pilot Training (Self-Study);
  - 2) Level B Ground Pilot Training (CBT); and
  - 3) Level E FFS Pilot Training (Simulator).
- c) Maintenance Actions:
  - 1) Use of latest updated AMM and FIM
  - 2) RVSM Height monitoring compliance is valid (ensure compliance for HMU or GMU test)
  - 3) Thorough review of all active/prolong storage work package since grounding till date.
  - 4) De-preservation tasks that are contained in the de-preservation section of the latest 737MAX Airplane Maintenance Manual:
    - i Engine, APU & fuel system de-preservation,
    - ii Airspeed System de-preservation, and
    - iii New or Refurbished Main & Aux Battery.

## Appendix 2: CAA Specific Requirements for Omani Operators

- A. Operator shall submit the Operational Readiness Flight (ORF) requirements and flight profile for CAA acceptance.
- B. Each Individual aircraft shall be inspected by CAA for re-issues of the Certificate of Airworthiness (C of A).
- C. Each individual aircraft shall be re-certified in accordance with this SAFETY CIRCULAR and the established airworthiness review process required by CAR M.
- D. A specific "after storage" process shall be established that uses SMS principles to ensure a safe return. This process shall be designated in a manner that consider elements outlined hereafter:
  - 1) Starting point and current status of each individual aircraft.
  - 2) Aircraft condition when and where stored.
  - 3) Adherence to the TC Holder storage procedures.
  - 4) Duration of storage.
  - 5) AMO situation, competency and capability regarding- resources, hangar space, procure spare parts and consumables, relocate tooling and ground equipment, potentially acquire special tool, status of calibrated tools and status of the maintenance data.
  - 6) AMO staff training including continuation training related to new changes.
  - 7) Adequacy of protective covers for the entire fleet.
  - 8) Sufficient tooling and ground equipment availability.
  - 9) Certificate of Maintenance review expiry.
  - 10) Overdue of schedule maintenance tasks during the storage period
  - 11) Airworthiness Directives consideration.
  - 12) Typical maintenance tasks required after storage.
  - 13) Robbing of parts from the aircraft. as applicable
  - 14) Aircraft sustained damage.
  - 15) Situation in regards of items that had been deferred using the MEL.
  - 16) Situation in regards of 'carry forward maintenance task' or any maintenance activity performed during the storage differently from the nominal way.
  - 17) Fuel condition with respect to the usage of approved biocide including amount set by the aircraft/engine manufacturer.
  - 18) Adverse conditions due to COVID 19 including supply chain, human availability, data access, etc.
  - 19) TC Holder consideration including clarification of the instructions to be followed, additional support in the form of a non-technical objection or repair designs due to any damage that occurred on the aircraft during the storage and additional instructions in case the storage procedures were not complied with.
  - 20) Combination of above elements to determine and act if the combination of multiple elements considered above increase the level of risk for the return to operations.
  - 21) Analysis of information related to particular defects, unexpected findings and abnormalities by the AMO on aircraft while preparing it for RTS likely linked with storage; For example - but not limited to - the contamination of pitot-static ports, hydraulic systems, corrosion and leakage.
  - 22) Report any difficulties on regular basis and by agreed method.