



## **SAFETY DECISION 2021-03**

**Issue 01**

**Date of Issue: February 17<sup>th</sup>, 2021**

### **SUBJECT:**

REQUIREMENTS FOR B737 MAX RETURN TO SERVICE (RTS)

### **REFERENCE PUBLICATIONS:**

SAFETY DECISION 2019-01 - PROHIBITION OF OPERATION OF BOEING 737-8 (MAX) AND BOEING 737-9 (MAX) AIRCRAFT IN UAE AIRSPACE

SAFETY DECISION 2020-22 - TECHNICAL REQUIREMENTS FOR B737 MAX RETURN TO SERVICE (RTS) - ISSUE 1

### **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 GCAA, in the interest of safety, had prohibited the operation of B737-8 and Boeing 737-9 (B737MAX), from operating in the United Arab Emirates airspace. 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, the FAA is working with numerous National Aviation Authorities including EASA & TCCA to recertify B737MAX to ensure its safe RTS.

This Safety Decision is issued to mandate the GCAA requirements to address the unsafe conditions identified in B737 MAX prior to its RTS and Operations in the UAE Airspace.

Note: this Safety Decision cancels and supersedes Safety Decision 2019-01 and Safety Decision 2020-22.

### **B737 MAX RTS REQUIREMENTS:**

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

#### **a) For UAE Operators:**

- 1) The operator shall:
  - i) Provide the GCAA 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 GCAA specific requirements listed in Appendix 2 for each aircraft serial number;
  - iii) Provide the GCAA with a statement of compliance with this SAFETY DECISION signed by the Accountable Manager or his designated representative for each aircraft serial number;
  - iv) Use its SMS processes to identify hazard 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 GCAA's operational and airworthiness approvals such as flight crew training and flight simulator qualification, AMP, or ARC.



- 2) The operator shall also develop a strategy on how to handle and monitor differences between FAA and EASA 737 MAX RTS (mainly RNP AR APH 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 GCAA Part V CAR-RCA.
- 4) The operator shall submit to GCAA a CD containing 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 GCAA with a compliance statement<sup>1</sup> from their respective NAA to certify that the operation of B737 MAX aircraft is in compliance with the following:
  - 1) All elements of RTS required by the State of Registry including the applicable RTS AD(s) or equivalent are implemented; and
  - 2) All pilots have undergone the RTS training required by the State of Registry.

**CONTACT:**

Further instructions or guidance may be obtained from GCAA Airworthiness or Flight Operation departments.

For Foreign operators contact: [foa@gcaa.gov.ae](mailto:foa@gcaa.gov.ae) (Foreign Operator Affairs).

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<sup>1</sup> Note 1: After submission of above statements to [foa@gcaa.gov.ae](mailto:foa@gcaa.gov.ae), the operator may start operation to the UAE without further commutation from the GCAA.

Note 2: The GCAA may verify the compliance statement and pilots RTS training certificate during Ramp Inspection.



### Appendix 1: FAA Requirements:

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

- a) Design changes:
  - 1) Main Airplane FAA AD 2020-24-02; (MCAS FCC Software, use of latest FAA published MMEL, AFM Revisions to limitations and Operating Procedures related to 8 Non-Normal Checklists, Display Software, Stab Wire Separation, AOA Sensor Calibration w/Tool and Operational Readiness Flight).
  - 2) Engine FAA AD 2020-06-01;
  - 3) Engine Pylon EMI FAA AD2020-11-12; and
  - 4) Kathon Fuel Additive FAA AD 2020-14-09.
  
- 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 (SAFO):
  - 1) Use of latest updated AMM and FIM
  - 2) 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: GCAA Specific Requirements

- a) Operator shall submit the Operational Readiness Flight (ORF) requirements and flight profile for GCAA acceptance.
- b) Each individual aircraft shall be re-certified in accordance with this SAFETY DECISION and the established airworthiness review process required by CAR M.901.
- c) 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) Airworthiness review certificate (ARC) 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.
  - 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 conditions found 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, corrosion and leakage.