## **OPERATIONS ADVISORY NOTICE (OAN)**



Issue Date: 05 November 2019

Civil Aviation Directorate Flight Operations Inspectorate Transport Malta Centre Triq Pantar Lija LJA 2021 Malta

### Subject: Maintenance Check Flights

#### 1. Background

OAN Number: 07/19

A number of accidents have been recorded over the past few years involving difficulties encountered during functional check flights performed to assess or demonstrate aircraft serviceability after maintenance or lease transfer.

Commission Regulation (EU) 2019/1384 amending Regulation (EU) 965/2012 details the provisions related to Maintenance Check Flights (MCF).

This OAN supersedes OAN 03/11.

#### 2. Applicability

This notice applies to operators conducting operations in accordance with Annex III (Part-ORO), Annex VII (Part-NCO) and Annex VIII (Part-SPO).

ORO.AOC.125 (b) includes the provisions when conducting MCFs with complex and other than complex motor-powered aircraft when aircraft is on an AOC. AOC holders are not required to submit a declaration when conducting MCFs.

This change is effective as of 25 September 2019.

#### 3. Definition and Levels of MCFs.

Maintenance Check Flights now fall under the definition of specialised operation as detailed in the applicable GM. Thus requirements are found under SPO/NCO.SPEC sections.

The definition of a MCF is found in Annex I – Definitions. For ease of reference this is reproduced hereunder –

'maintenance check flight ('MCF')' means a flight of an aircraft with an airworthiness certificate or with a permit to fly which is carried out for troubleshooting purposes or to check the functioning of one or more systems, parts or appliances after maintenance, if the functioning of the systems, parts or appliances cannot be established during ground checks and which is carried out in any of the following situations:

(a) as required by the aircraft maintenance manual ('AMM') or any other maintenance data issued by a design approval holder being responsible for the continuing airworthiness of the aircraft;

(b) after maintenance, as required by the operator or proposed by the organisation responsible for the continuing airworthiness of the aircraft;



(c) as requested by the maintenance organisation for verification of a successful defect rectification;

(d) to assist with fault isolation or troubleshooting;

# Operators are further required to determine the levels of MCFs. The levels of MCFs are defined in NCO.SPEC.MCF.100 & SPO.SPEC.MCF.100.

#### 4. Hazard identification and risk mitigation (AOC holders).

The safety risk management process required by ORO.GEN.200 should identify the hazards and associated risks mitigations when conducting such flights. The operation of MCFs shall be included in the hazard identification process. This operational risk assessment procedure should be conducted prior to each MCF.

#### 5. Flight Programme & Maintenance Check Flight Manual (Complex).

Before conducting a Level A maintenance check flight, operators shall develop and document a flight programme. It is recommended that applicable documentation available from type certificate holder or other valid documentation is used.

These operations and associated procedures shall be described in the operations manual. The operator may make direct reference to a check flight procedures manual, as long as this is part of a controlled document suite.

This document shall be provided to the CAD, and informed when is updated. These updates shall be done in accordance with manual *procedures not requiring prior approval.* The content of the manual shall satisfy the requirements set out in AMC 1 SPO.SPEC.MCF.110.

OMA Section 8.7 shall describe this process and procedure of how MCFs are managed. It is not expected that any specific maintenance procedures in CAME or any other approved maintenance related documents are duplicated in the OM. <u>Amendments of OMA Section 8.7</u> falls under provisions requiring prior approval (ORO.AOC.125).

#### 6. Flight crew requirements for Level A MCF. (Complex / other than complex)

SPO.SPEC.MCF.115, details the minimum requirements for flight crew members assigned to conduct a Level A MCF. Pilots holding a flight test rating i.a.w (EU) 1178/2011 shall be given full credit for the training course stipulated in SPO.SPEC.MCF.115(a)(1), provided that they have completed the operator's initial and recurrent CRM.

For Other-than complex motor powered aircraft, the operator shall consider aircraft complexity. AMC1 NCO.SPEC.MCF.120 stipulates that a flight instructor may act as a PIC on such MCF.



#### 7. Flight Crew Training Course for Level A MCF (Complex)

SPO.SPEC.MCF.120 and the associated AMC detail the training requirements pilots are to complete before conducting Level A MCF. Although the the training course on one aircraft category is considered valid for all aircraft types of this category, the operator is required to specify whether differences or familiarisation training is required and describe the contents this training.

The training course should comprise of ground training followed by simulator training. The syllabus, is detailed in AMC2 SPO.SPEC.MCF.120. *Operators are required to include the specific syllabus in OM Part D.* 

#### 8. Crew Composition and Persons on Board (Complex / other-than complex)

The operator's policy should clearly dictate the crew composition and persons required to be on board. Only personnel essential for the completion of the flight should be on board. Where a task specialist is required for the completion of the MCF, appropriate training and briefing should be provided for the task required. GM1 SPO.SPEC.MCF.125 provides additional guidance.

#### 9. Operational Limitations (Other-than complex)

NCO.SPEC.MCF.105 allows for specific alleviations from Continuing Airworthiness requirements set out in Regulation (EU) 1321/2014.

By way of derogation from point NCO.IDE.A.105 or NCO.IDE.H.105, the pilot-in-command may conduct a flight with inoperative or missing items of equipment or functions required for the flight if those inoperative or missing items of equipment or functions have been identified in the checklist referred to in point NCO.SPEC.MCF.110.

#### 10. Checklist and Safety Briefing (Other-than complex)

The operator planning to conduct an MCF should develop checklists for the in-flight assessment of the unreliable systems, considering relevant abnormal and emergency procedures. When developing the checklists, the operator should consider the applicable documentation available from the type certificate holder or other valid documentation.

The pilot-in-command should only allow on board the persons needed for the purpose of the flight and brief the crew and task specialist on abnormal and emergency procedures relevant for the MCF.

Requirements are laid out on NCO.SPEC.MCF.110 and associated GM.



#### 11. Flight Crew Requirements – pilots acting as PIC on a MCF. (Complex)

Article 9aa gives credit to pilots having acted as PIC on a Level A MCF before 25 September 2019 for the purpose of complying with point SPO.SPEC.MCF.115(a)(1) in Annex VIII.

In this case the operator shall ensure that the PIC receives a briefing on any differences identified between operating practices established before 25 September 2019 and those provided in Section 5 of Subpart E of Annex VIII, including those derived from the related procedures established by the operator.

#### 12. Operator Actions

All affected operators are requested to allow sufficient time to plan and implement the new provisions in order to avoid unnecessary delays.

Flight Operations Inspectorate