

OTAR 39 MAINTENANCE PROGRAMME COMPLIANCE CHECKLIST

Organisation Name:	AOC Number (if applicable):	BCAA CAMO No.:
Address:	Contact Name/Technical Coordinator:	
	Telephone Number:	
	Fax Number:	
MCM/CAME Ref:	Rev:	E-mail:
MPD/AMM Ref:	Rev:	MP Ref:
		Rev:
	Signature:

Instructions for Completion

The purpose of this Maintenance Programme Compliance Checklist is to assist applicants with a view to ensuring that Maintenance Programmes submitted to the BCAA for approval have been developed in a standardised fashion, have visibility of compliance to OTARs and include the elements required to ensure that the subject aircraft can be effectively maintained in an airworthy condition.

It is intended that this document establishes a standardised format, however in developing a Maintenance Programme you will inevitably have to take account of the nature of included material, cater for operator related material, be dependent on other documentation with a consequence that this may alter the formatting from this document. Where the applicant has deviated from this guidance format, completing and maintaining this document will assist in establishing continued visibility of compliance to the OTARs.

It is not intended that this document should constrain or prevent the applicant from including required information. In all cases where the applicant has included additional data or other means of compliance, the applicant should submit with the Maintenance Programme an explanatory document detailing any such changes.

The columns titled **MCM/CAME Reference** and **MP Reference** should be entered where appropriate. Where it is determined that the subject is not applicable, is covered by a process in another document, or is dealt with in an alternative way, details of the variance including any cross references should be recorded in the 'Compliance Notes' column.

The column titled **Subject Interpretation** is designed to assist the applicant to develop the text in a particular section/paragraph. Once this Checklist has been fully completed please submit to: Bermuda Civil Aviation Authority, P.O. Box HM 1017, Hamilton HM DX, Bermuda. Fax: +1-441293 2417, Email: airworthiness@bcaa.bm

NOTE: Any incomplete Forms will be returned to the applicant and will not be processed.

Sections to be completed by Applicant

#	Reference	Requirement	Subject Interpretation	MCM/CAME Reference	MP Reference	Compliance Notes
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39.51 Management Personnel

1	39.51 (a)	Except where provided in paragraph 39.51(b), the owner or, where it is leased, the lessee of an aircraft registered in the Territory shall appoint a person acceptable to the Governor and known as the Technical Coordinator who will ensure that appropriate arrangements for continued airworthiness management required by this OTAR Part are in place.	<ul style="list-style-type: none"> • This shall be a person nominated by the CAMO and will be the point of contact with BCAA. • This person will be responsible to make recommendations for issuance and renewal of CofA and be responsible for the Continued Airworthiness of the aircraft to which they are assigned. 			
2	39.51 (b)	Each holder of an air operator's certificate shall appoint a post holder under the requirements of OTAR Part 119 within its organisation who will be responsible for the continued airworthiness management of the operator's aircraft as required by this OTAR Part.	Provide copy of arrangement (technical aspects only) between operator and CAMO A section shall be included detailing CAWM arrangements			
3	39.51 (c)	The appointed post-holder for continued airworthiness of Territory registered aircraft operating under a foreign air operator's certificate and the provisions of an ICAO Article 83bis agreement shall establish and maintain arrangements for the continued airworthiness management of the Territory registered aircraft as required by Subpart F of this OTAR Part.	Provide copy of arrangement (technical aspects only) between operator and CAMO A section shall be included detailing CAWM arrangements			

39.61 Maintenance programme

4	39.61 (a)	Aircraft granted a certificate of airworthiness to the requirements of OTAR Part 21 Subpart E shall be maintained in accordance with a maintenance programme approved by the Governor	A section shall be set aside for the inclusion of the original BCAA approval			
5	39.61 (b)	The maintenance programme and any amendments shall require approval by the Governor for each aircraft, and shall include details of the maintenance of the aircraft, engines, propellers, rotors, appliances and emergency equipment items.	This section should identify the document; and <ul style="list-style-type: none"> • its contents • amendment control • process for securing amendment approval • distribution list • details of each aircraft, engines, APU 			

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6	39.61 (c)	The maintenance programme shall reference the required inspection standards, practices and procedures that shall be at least equivalent to the Type Certificate holder's scheduled maintenance requirements.	Description and references of source documentation including any applicable revision that the maintenance programme is based in such as: MPD or Maintenance Manual Chapter 5, for example.			
7	39.61 (d)	Any schedule of inspections/tests required by any approved programme amendment shall be introduced in a controlled manner to ensure the continued airworthiness of the aircraft.	This section should identify introduction controls for significant amendments. Amendments that by example alter the inspection methodology, without appropriate controls for their introduction may have an adverse affect on the Airworthiness of the aircraft. The controls should cater for introduction, transition and bridging of significant amendments while taking into account change management processes of an applicable SMS.			
8	39.61 (e)	Consideration shall be given to human performance within the maintenance programme including the format of the maintenance programme document, maintenance task breakdown and combined maintenance tasking, particularly safety critical tasks which shall be identified in the maintenance programme.	Consideration should be given to human performance, document format and user defined functions within the maintenance programme such as: (1) Maintenance Planning: Data required to effectively produce maintenance inputs including the arrangement of inspections in a manner that avoids conflict of inspection/maintenance activities, typically known as task orientation. (2) Mandatory Inspection Tasks: Ensuring maintenance planning personnel have clear visibility of such tasks preventing any unauthorised escalation. (3) Required Reporting: Tasks associated with reporting such as SSID are readily identified. (4) Critical Task Controls: Ensuring tasks that are critical in nature are planned and allocated in a segregated manner that prevents the possibility of multiple error maintenance. (ie; Flight and Engine Controls etc) (5) Maintenance Resource Planning: Tasks requiring specialised tooling and or techniques are readily identified with reference to required resources.			

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9	39.61 (f) <i>See also item #25</i>	<p>The maintenance programme shall readily identify any certification inspection tasks and other significant continued airworthiness inspection tasks that are the subject of specific control and mandated by the applicable State of Type Certification, as referred to in OTAR Part 21.19(a) such as but not limited to:</p> <p>(1) Supplemental Structural Inspection Document;</p> <p>(2) Fuel Tank Safety Inspections;</p> <p>(3) Ageing Aircraft;</p> <p>(4) Widespread Fatigue Damage;</p> <p>(5) Electrical Wiring Interconnection Systems (EWIS).</p>	<p>Tasks related to the following documents must be identified as such in the maintenance programme:</p> <ul style="list-style-type: none"> • Manufactures Maintenance Planning/Inspection Manuals • Engine Off Wing Maintenance Programmes • Corrosion Control Manuals • Supplemental Structural Inspection Documentation • Specific Vendor Service Manuals • Service Bulletin • Continued Airworthiness Instruction relevant to Modifications or repairs • Fuel Tank Safety Inspection Programmes • Wide Spread Fatigue Damage • Cabin Hand Book • Component Vendor Maintenance Data 			

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10	39.61 (g)	<p>The maintenance programme shall readily identify any certification inspection tasks and other significant continued airworthiness inspection tasks that are the subject of specific control and mandated by the applicable State of Type Certification, as referred to in OTAR Part 21.19(a) such as but not limited to:</p> <p>(1) Supplemental Structural Inspection Document;</p> <p>(2) Fuel Tank Safety Inspections;</p> <p>(3) Ageing Aircraft;</p> <p>(4) Widespread Fatigue Damage;</p> <p>(5) Electrical Wiring Interconnection Systems (EWIS).</p>	<p>SUGGESTED OPERATOR'S CERTIFICATION STATEMENT:</p> <p>In the preparation of this Maintenance Programme to meet the requirements of OTAR Part 39, the recommendations made by the airframe constructors and engine and equipment manufacturers have been evaluated and, where appropriate, have been incorporated. It is accepted that any inspection requirements specified by the Director of BCAA shall be incorporated. This Maintenance Programme lists the tasks and identifies the practices and procedures specified by the applicable Type Certificate Holder(s), which form the basis for the scheduled maintenance of the aircraft(s).The operator undertakes to ensure that these aircraft will be maintained in accordance with this programme. The data contained in this programme will be reviewed for continued validity at least annually in the light of operating experience. It is accepted that this programme does not prevent the necessity for complying with any new or amended OTAR where any new or amended requirements may override elements of this programme. It is understood that compliance with this programme alone does not discharge the operator from ensuring that the programme reflects the maintenance needs of the aircraft, such that continuing safe operation can be assured. It is further understood that the BCAA reserves the right to suspend, vary or cancel approval of the Maintenance Programme if the BCAA has evidence that the requirements of the Maintenance Programme are not being followed or that the required standards of airworthiness are not being maintained.</p> <p>Name:</p> <p>Position:</p> <p>Signed:</p> <p>For and behalf of operator:</p> <p>Date:.....</p>			

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#	Reference	Requirement	Subject Interpretation	MCM/CAME Reference	MP Reference	Compliance Notes
11	39.61 (h)	(1) an explanation of the programme, including the continuity of inspection responsibility, procedures for making any required reports and technical reference material; and	Description and references of source documentation including any applicable revision that the maintenance programme is based in such as: MPD or Maintenance Manual Chapter 5, for example.			
12	39.61 (h)	(2) instructions and procedures for the implementation of inspection tasks for the particular aircraft type, taking account of the aircraft modification status and any repairs that have associated instructions for continued airworthiness; and	This shall include details of additional maintenance requirements brought about by modifications or repairs, including threshold, interval and any applicable instructions for continued airworthiness to perform the required task			
13	39.61 (h)	(3) an inspection schedule for performing the inspections required by the programme expressed in terms of the total time in service, cycles, calendar time, number of system operations, or any combination of these; and				
14	39.61 (h)	(4) for a progressive inspection programme, an inspection schedule that provides for the complete inspection of the aircraft within each 12 month period or is consistent with: (i) the manufacturer's recommendations; and (ii) the operator's service experience; and (iii) the type of operation in which the aircraft is engaged; and (iv) the utilisation of the aircraft in terms of hours and cycles or a combination thereof.				
15	39.61 (h)	(5) instructions taking account of detailed technical justification, for altering and gaining approval for a change of inspection intervals or a maintenance process because of service experience; and				
16	39.61 (h)	(6) instructions for varying an inspection interval under exceptional circumstances taking account of overriding mandatory requirements and maintenance programme inspection requirements referred to in paragraphs 39.61(e) and (f); and	See Item #30 for additional information			

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17	39.61 (h)	(7) sample inspection forms, reports and instructions for their use; and				
18	39.61 (h)	(8) procedures for maintenance trend analysis if the programme utilises condition monitored maintenance or information derived from health and usage monitoring systems; and				
19	39.61 (h)	(9) inspection requirements required for approved special operations; and	Special operations include, for example, AWOPS, MNPS, RVSM, ETOPS, offshore, Helicopter Emergency Medical Service, dangerous goods, etc.			
20	39.61 (h)	(6) instructions for varying an inspection interval under exceptional circumstances taking account of overriding mandatory requirements and maintenance programme inspection requirements referred to in paragraphs 39.61(e) and (f); and	If the Type Certificate holder has not provided specific requirements, the limitations specified in ICAO Annex 6 Part I, II, or III, as applicable shall prevail			
21	39.61 (h)	(11) a list of definitions and acronyms used				

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39.63 Maintenance programme approval						
22	39.63 (b)	(b) The application for approval of the maintenance programme shall contain, or references shall be made to, the following information: (1) the name and address of the owner or lessee or the holder of an air operator's certificate; and	This paragraph should detail the responsible operator of the aircraft (Technical Coordinator and CAMO must be identified on items 1, 2 and 3) Item 4 on current form ask for info on the "AMP developer". Lack of this info is a common observation during my reviews. Remember: it is possible that CAMO and AMP's developer could be different organizations.			
23	39.63 (b)	(4) technical justification relating to the anticipated utilisation of the aircraft, inspection intervals and procedures for inspection task management; and				
24	39.63 (b)	(5) a copy of the maintenance programme either in hard copy or electronic format in a manner acceptable to the Governor; and	This shall be supplied to BCAA in electronic copy			
25	39.63 (b) <i>See also item #9</i>	(6) copies of any other supporting documents, such as condition monitored maintenance activities, structural integrity programmes, engine off-wing maintenance programmes, fuel tank safety inspection programmes; and	Description and references of source documentation including any applicable revision that the maintenance programme is based on such as: <ul style="list-style-type: none"> • Manufactures Maintenance Planning/Inspection Manuals • Engine Off Wing Maintenance Programmes • Corrosion Control Manuals • Supplemental Structural Inspection Documentation • Specific Vendor Service Manuals • Service Bulletin • Continued Airworthiness Instruction relevant to Modifications or repairs • Fuel Tank Safety Inspection Programmes • Wide Spread Fatigue Damage • Cabin Hand Book • Component Vendor Maintenance Data 			

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26	39.63 (b)	(7) the aircraft designation, serial number and registration mark for each aircraft that is subject to the programme; and	In addition, include engine, propeller and APU designation as well as the TCDS number as issued by the State of the Type Certification on which Type Acceptance Certification rests (see Note 1). Note 1: is not unusual to operate aircrafts under a TCDS different to that issued by the State of Design (example: EASA TCDS for Boeing aircrafts) even for aircrafts on the same fleet.			
27	39.63 (b)	(8) any further particulars relating to the programme and applicant as may be required by the Governor.				

39.65 Condition monitored and reliability maintenance programmes

28	39.65	<p>(a) Where the manufacturer of aircraft, engines and propellers prescribe condition monitoring, reliability programmes or health and usage monitoring systems these shall form part of the maintenance programme approved by the Governor under paragraph 39.63.</p> <p>(b) Appropriate procedures acceptable to the Governor shall be established for any applicable condition monitoring or reliability or health and usage monitoring systems referred to in paragraph 39.65(a).</p> <p>(c) Where data gathering is required, the following shall form the basis of an acceptable programme:</p> <p>(1) aircraft utilisation; and</p> <p>(2) pilot reports; and</p> <p>(3) aircraft mechanical delays and cancellations; and</p> <p>(4) unscheduled engine shutdowns; and</p> <p>(5) unscheduled engine removals; and</p> <p>(6) unscheduled component removals; and</p> <p>(7) confirmed component failures; and</p> <p>(8) occurrences.</p>				
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39.81 Mass and Balance						
29	39.81	(a) Aircraft are to be weighed at intervals not exceeding 5 years; or				(a)
		(1) where the aircraft is part of a fleet weighing programme specified by the type certificate holder and accepted by the Governor, at intervals specified by that programme; and				(1)
		(2) whenever alterations affecting mass and balance of the aircraft are made that exceed the limits for computed mass and balance changes advised by the aircraft type certificate holder.				(2)

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OTAC 39-6 (Issue 2, 13 March 2012) – Permitted variations to Maintenance periods

30	OTAC 39-6 (Issue 2, 13 March 2012)	<p>15 Permitted variations to Maintenance periods</p> <p>15.1 Periods prescribed by the Maintenance Programme may only be varied with the approval of BCAA.</p> <p>15.2 It is the responsibility of the Technical Coordinator (TC) or contracted approved Continued Airworthiness Management organisation to ensure that arrangements are effectively established to maintain the aircraft in accordance with the approved Maintenance Programme.</p> <p>15.3 Unless specifically prohibited by an Airworthiness Directive or a manufacturer’s requirement, inspection periods may be varied in accordance with the ‘Inspection Planning Tolerance – Extensions’ (shown in Table 1 below).</p> <p style="text-align: center;">Table 1</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">PERIOD</th> <th style="width: 50%;">MAXIMUM VARIATION</th> </tr> </thead> <tbody> <tr> <td colspan="2">Items controlled by flying hours</td> </tr> <tr> <td>5,000 flying hours or less</td> <td>10%</td> </tr> <tr> <td>More than 5,000 flying hours</td> <td>500 flying hours</td> </tr> <tr> <td colspan="2">Items controlled by calendar time</td> </tr> <tr> <td>One year or less</td> <td>The lesser of 10% or one month</td> </tr> <tr> <td>More than 1 year but less than 3 years</td> <td>2 months</td> </tr> <tr> <td>More than 3 years</td> <td>3 Months</td> </tr> <tr> <td colspan="2">Items controlled by cycles or landings</td> </tr> <tr> <td>500 cycles/landings or less</td> <td>The lesser of 10% or 25 cycles/landings</td> </tr> <tr> <td>More than 500 cycles/landings</td> <td>The lesser of 10% or 500 cycles/landings</td> </tr> </tbody> </table> <p>15.4 For items that are controlled by more than one limit i.e. flying hours and calendar time, the more restrictive limit will apply.</p> <p>15.5 The extension periods in Table 1 above should be supported by appropriate technical justification. This should be established from a detailed review of the aircraft records, maintenance and operational history. It should also establish inspection requirements that cannot be subject to variation as per Table 1.</p> <p>15.6 The period to the next required inspection shall be deemed to begin at the point prior to when the task/ interval was extended. No extension may be taken towards the next required inspection.</p> <p>NOTE: Extensions are not permitted to be cumulative. Abuse of extensions can result in enforcement action or removal of privileges.</p>	PERIOD	MAXIMUM VARIATION	Items controlled by flying hours		5,000 flying hours or less	10%	More than 5,000 flying hours	500 flying hours	Items controlled by calendar time		One year or less	The lesser of 10% or one month	More than 1 year but less than 3 years	2 months	More than 3 years	3 Months	Items controlled by cycles or landings		500 cycles/landings or less	The lesser of 10% or 25 cycles/landings	More than 500 cycles/landings	The lesser of 10% or 500 cycles/landings				
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