

MAINTENANCE PROGRAM CHECKLIST

The purpose of this Maintenance Program Compliance Checklist is to assist owners /operators/ inspectors of CAAB with a view to ensuring that Maintenance Programs are standardized and include all items that are required by CAAB Part-M M.A.302, AMC M.A. 302 and also other additional CAAB required items. This Checklist should be submitted along with draft maintenance program by the operator for review by CAAB.

This document includes all the relevant information as detailed in Appendix 1 to the Acceptable Means of Compliance (AMC), the format of which may be modified to suit the operator's preferred method. In all cases the checklist should clearly show both compliance (Yes) and location of the compliance in the notes section or not applicable (N/A) and the reason in the notes section. Verification remarks column to be used by CAAB inspector while reviewing the Draft AMP for approval.

The specific tasks and the relevant control procedures shall be included as specified in the Aircraft Maintenance Program (AMP) or Continuing Airworthiness Management Exposition (CAME) of the operator / Subpart G organization managing the aircraft. The relevant cross- references shall be specified in the notes column at the appropriate paragraphs and the correct term AMP or CAME shall be used. It is not acceptable simply enter the AMP or CAME as the cross reference.

The checklist is provided to ensure the minimum required items are contained in the Maintenance Program. It should be enhanced as necessary to suit the aircraft's needs; operational, utilization, regulation and environmental.

AOC Number (If applicable):	
Owner / Operators Name:	
CAME reference (If applicable)	
Owner / Operator AMP reference	
Amendment Status	
Details of the previous maintenance program	
Registration No of aircraft	

1.General requirements					
Items No.	Check list points	Complied	N/A	Notes	Verification
1.1	Maintenance Program basic Information				
	The type/model/ and registration number of the aircraft				
	The type/model of the engines				
	The type/model of the propeller <i>where applicable</i>				

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1.1.1	The type/model of the auxiliary power units (APU) where <i>applicable</i>				
1.1.2	The name and address of the owner, operator, or AOC holder/CAMO managing the aircraft airworthiness				
1.1.3	The program reference, the date of issue and issue number				
1.1.4	A Signed statement by the owner, operator or AOC holder/CAMO managing the aircraft airworthiness (see Appendix 1 of this document)				
1.1.5	Content list / Index List of effective pages and their Revision status of the document				
1.1.6	Check periods for anticipated utilization; include a utilization tolerance of not more than 25% (<i>Where utilization cannot be anticipated, calendar time limits should also be included</i>)				
1.1.7	Procedures for escalation of established check periods <i>where applicable</i> and acceptable to the CAAB				
1.1.8	Records of amendments w.r.t MPD revisions				
1.1.9	Pre-flight maintenance tasks				
1.1.10	The tasks and the periods (intervals / frequencies) at which inspections should be carried out, including type and degree of inspection of the:				
	a. Aircraft				
	b. Engine(s)				
	c. APU				
	d. Propeller(s)				
	e. Components				
	f. Accessories				
	g. Equipment				
	h. Instruments				
	i. Electrical and radio apparatus				

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1.1.11	The periods at which components should be:				
	a. Checked				
	b. Cleaned				
	c. Lubricated				
	d. Replenished				
	e. Adjusted				
	f. Tested				
1.1.12	Details of ageing aircraft system requirements with any specified sampling programs ,if applicable				
1.1.13	Details of specific structural maintenance programs, <i>if applicable</i> , including but not limited to:				
	a) Damage Tolerance and Supplemental Structural Inspection Programs (SSID)				
	b) SB review performed by the TC holder				
	c) Corrosion prevention and control				
	d) Repair Assessment				
	e) Widespread Fatigue Damage				
1.1.14	Statement of the limit of validity in terms of total flight cycles/calendar date/flight hours for the structural program in 1.1.13, <i>if applicable</i>				
1.1.15	The periods at which overhauls and/or replacements of components should be made				
1.1.16	A cross-reference to other documents related to:				
	a) Mandatory life limitations.				
	b) Certification Maintenance Requirements (CMR's), <i>if Applicable</i>				
	c) Airworthiness Directives (AD) <i>Specific identification of the above items mandatory status</i>				
1.1.17	Reliability program or statistical methods of continuous Surveillance, <i>if applicable</i>				
1.1.18	A statement that practices and procedures should be the standards specified by the TC holder				
1.1.19	Each maintenance task should be defined in a definition section				

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1.1.20	If applicable , details of Critical Design Configuration Limitations together with appropriate procedures				
2. Program basis					
2.1	Is the program based upon the MRB report (where applicable), the TC holder's maintenance planning document or of Chapter 5 of the maintenance manual?				
2.2	For newly type-certificated aircraft /comprehensively appraise the manufacturer's recommendations (MRB report) along with other airworthiness information.				
2.3	For existing aircraft types, comparisons with maintenance programs previously approved				
3. Amendments					
	Amendments (revisions) to reflect changes : <i>See Appendix 2</i>				
3.1	a. In the TC holder's recommendations				
	b. Introduced by modifications				
	c. Introduced by repairs				
	d. Discovered by service experience				
	e. As required by the CAAB				
4. Permitted variations to maintenance periods					
4.1	Vary the periods through a procedure approved by the CAAB?				
4.2	Vary the periods with the approval of the CAAB				
5. Periodic review of maintenance program contents					
	Periodic review to ensure that the program reflects current:				
5.1	a. TC holder's recommendations				
	b. Revisions to the MRB report (if applicable)				
	c. Mandatory requirements				
	d. Maintenance needs of the aircraft				
5.2	Annual review of AMP is defined				

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6. Reliability programs				
6.1	Applicability			
6.1.1	Developed in the following cases:			
	a) Program is based upon MSG-3 logic			
	b) Program includes condition monitored components			
	c) Program does not contain overhaul time periods for all significant system components			
	d) Specified by the manufacturer's MPD or MRB			
6.1.2	Need not be developed in the following cases			
	a) Program is based upon the MSG-1 or 2 logic (only contains hard times or on condition items)			
	b) Not a complex motor-powered aircraft according to CAAB PART-M			
	c) Program provides overhaul time periods for all significant system components			
6.1.3	Operator may develop own reliability monitoring program (when it may be deemed beneficial from a maintenance planning point of view.)			
6.2 Applicability for AOC HOLDER/CAMO/operator of small fleets of aircraft				
6.2.1	Less than 6 aircraft of the same type			
6.2.2	Reliability program is irrespective of the fleet size			
6.2.3	AOC HOLDER/CAMOs tailor their reliability program to suit the size and			
6.2.4	Use of "Alert levels" should be used carefully			
6.2.5	For small fleet of aircraft while establishing a reliability program, consider the following			
	a) Focus on areas where a sufficient amount of data is likely to be processed			
	b) How is engineering judgment applied?			
6.2.6	Pool data and analysis (paragraph 6.6 specifies conditions)			
6.2.7	If unable to pool data, additional restrictions on the MRB/MPD tasks intervals specified.			
6.3 Engineering Judgment				

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6.3.1	Are there appropriately qualified personnel (with appropriate engineering experience and understanding of reliability concept) for the reliability program?				
6.3.2	Failure to provide appropriately qualified personnel for the reliability program may lead to rejection of aircraft maintenance program				
6.4 Contracted maintenance					
6.4.1	AOC HOLDER/CAMO may sub contract certain functions of Maintenance program to other maintenance organization (provided this organization proves to have the appropriate expertise.) Such as				
6.4.2	a) Developing the maintenance and reliability programs				
	b) Collection and analysis of the reliability data				
	c) Providing reliability reports				
	d) Proposing corrective actions				
6.4.3	Approval to implement a corrective action, is AOC HOLDER/CAMO prerogative and responsibility				
6.4.4	Maintenance contract must be clearly spelt out in CAME, and maintenance organization procedures				
6.5 Reliability program.					
6.5.1	Objectives				
6.5.1.1	Statement summarizing the prime objectives of the program (To the minimum it should include the following)				
	a) Recognise the need for corrective action				
	b) Establish what corrective action is needed				
	c) Determine the effectiveness of that action				
6.5.1.2	The extent of the objectives should be directly related to the scope of the program (manufacturer's maintenance planning documents should be consulted in every case)				
6.5.1.3	All MSG -3 related task are effective and their periodicity is adequate				
6.5 .2 Identification of items					
6.5.2	The items controlled by the program should be stated (e.g. by ATA Chapters)				
6.5.3 Terms and definitions.					

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6.5.3	Significant terms and definitions should be clearly identified				
6.5.4 Information sources and collection					
6.5.4.1	Sources and procedures for collecting and receiving it in the Exposition				
6.5.4.2	Type of information to be collected should be related to the objectives of program, Examples of the normal prime sources:				
	a) Pilots Reports				
	b) Technical Logs				
	c) Aircraft Maintenance Access Terminal / On-board readouts				
	d) Maintenance Worksheets				
	e) Workshop Reports				
	f) Reports on Functional Checks				
	g) Reports on Special Inspections				
	h) Stores Issues/Reports				
	i) Air Safety Reports				
	j) Reports on Delays and Incidents				
	K) Other sources: i.e. ETOPS, RVSM, CAT II/III				
6.5.4.3	Due account of Continuing Airworthiness information, safety information promulgated under CAR-21				
6.5.5 Display of information					
6.5.5	Information displayed graphically or in tabular format or a Combination				
6.5.5.1	Provisions for “nil returns”				
6.5.5.2	Where “standards” or “alert levels”, display of information oriented accordingly				
6.5.6 Examination, analysis and interpretation of the information					
6.5.6	Method for examining, analyzing and interpreting the program information should be explained.				

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6.5.6.1	Methods of examination may be varied - content and quantity-				
6.5.6.2	Analysis & Interpretation- The whole process should enable a critical assessment of the effectiveness of the program as a total activity. Such process may involve:				
	a) Comparisons of operational reliability with established or allocated standards				
	b) Analysis and interpretation of trends				
	c) Evaluation of repetitive defects				
	d) Confidence testing of expected and achieved results				
	e) Studies of life-bands and survival characteristics				
	f) Reliability predictions				
	g) Other methods of assessment				
	h) Stores Issues/Reports				
	i) Air Safety Reports				
	j) Reports on Delays and Incidents				
	K) Other sources: i.e. ETOPS, RVSM, CAT II/III				
	Range and depth of engineering analysis should be related to the particular program and to the facilities. The following, at least, should be taken into account:				
	a) Flight defects and reductions in operational reliability				
	b) Defects - line and main base.				
6.5.6.3	c) Deterioration observed -routine maintenance				
	d) Workshop and overhaul facility findings.				
	e) Modification evaluations				
	f) Sampling programs				
	g) Adequacy of maintenance equipment and publications				

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	h) Effectiveness of maintenance procedures				
	i) Staff training				
	j) Service bulletins, technical instructions etc.				
6.5.6.4	In case of Contracted maintenance - arrangements for availability of information should be established and details should be included				
6.5.7 Corrective Actions					
	Procedures / time scales for implementing corrective actions / monitoring – should be fully described & could include				
	a) Changes to maintenance, operational procedures or techniques				
	b) Changes involving amendment of the scheduled maintenance period or task in the approved maintenance program				
6.5.7.1	c) Amendments to approved manuals				
	d) Initiation of modifications				
	e) Special inspections of fleet campaigns				
	f) Spares provisioning				
	g) Staff training				
	h) Manpower and equipment planning				
6.5.7.2	Procedures for effecting changes should be described				
6.5.8 Organizational Responsibilities					
6.5.8	Organizational structure - chains of responsibility should be defined				
6.5.9	Presentation of information to the competent authority Following information submitted to the CAAB for approval of the reliability program				
	a) Time scales for reports / distribution				
	b) Format and content of reports of supporting request for increase in period between maintenance (Escalation)				

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	c) requesting amendments				
6.5.10 Evaluation and review					
6.5.10	Describe procedures and individual responsibilities- continuous monitoring of the effectiveness of the program				
6.5.10.1	Procedures for monitoring/ revising the reliability “standards” or “alert levels				
6.5.10.2	Criteria to be taken into account during the review includes				
	a) Utilization (high / low / Seasonal)				
	b) Fleet commonality				
	c) Alert Level adjustment criteria				
	d) Adequacy of data				
	e) Reliability procedure audit				
	f) Staff training				
6.5.11	Approval of maintenance program amendment Approval of maintenance program changes arising from the reliability program				
	a) Does the reliability program monitor the content of the maintenance program in a comprehensive manner?				
	b) Is appropriate control exercised by the owner / operator over the internal validation of such changes				
6.6 Pooling Arrangements					
6.6.1	Pooling information - must be substantially the same, including:				
	a) Certification / modification / SB compliance				
	b) Operational Factors				
	c) Maintenance factors				
6.6.2	Is there a substantial amount of commonality / has the CAAB agreed?				

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6.6.3	Is the aircraft on short-term lease? CAAB may grant more flexibility				
6.6.4	Changes to any AOC HOLDER/CAMO requires assessment in Order that the pooling benefits can be maintained				
6.6.5	Reliability program managed by the aircraft manufacturer if agreed by the CAAB				
7. CAAB Required Items					
7.1	Details of who may issue a CRS				
7.2	Define which inspections / checks are considered to be base maintenance				
7.3	Define maintenance requirements , in the absence of specific recommendations in MPD/Chapter 5 of AMM				
7.3.1	Aircraft battery capacity check/deep cycle? (As per Vendor recommendation)				
7.3.2	Emergency equipment as per vendor recommendations				
7.3.3	Emergency escape provisions as per vendor recommendations for the following equipments:				
	a. Portable valise type life-rafts				
	b. Door & escape chutes/slides				
	c. Emergency exits / hatches				
7.3.4	Flexible hoses as per CAR Sec 2 Series S Part I				
7.3.5	Fuel / oil system contamination checks CAR Sec 2 Series H Part II				
7.3.6	Pressure vessels as per vendor Recommendation				
7.3.7	Seat belts and harnesses as per vendor Recommendations				
7.3.8	Instruments as per Sec 2 Series I Part I				
7.3.9	Vital points and control systems (procedure for duplicate inspection)				

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7.3.10	Maintenance applicable to special operations approvals, if applicable (Additional maintenance task required to ensure continued compliance with following special approvals):				
	AWOPS				
	MNPS				
	RVSM				
	ETOPS				
	Sea Pilot transfers				
	Offshore operations				
	HEMS				
	Transport of dangerous goods				
	Other (Specify)				
7.3.11	Customer furnished equipment				
7.3.12	Engine & APU condition monitored maintenance				
7.3.13	CAAB Mandatory Modification requirements/AD's				
7.3.14	Flight data recorder systems (As per Sec 2 Series I Part V)				
7.3.15	Mode "S/C" transponder (As per Sec 2 Series R Part IV)				
7.3.16	In-flight entertainment systems (IFE) (As per vendor recommendation)				
7.3.17	Cock Pit Voice Recording System (As per Sec 2 Series I Part VI)				
7.3.18	Emergency Locator Beacon (ELT)(As per vendor recommendation)				

Completed by: [Name]

Signed:

Date: