



**AIRWORTHINESS
ADVISORY
CIRCULAR**

Barbados Civil Aviation
Department

BCAD Document AAC-004

THE TECHNICAL LOG

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1. Introduction.....	4
2. Definition and Regulations	4
3. BCAD Requirements	4
4. The Sector Record Page	5
5. Retention of Records	6
6. Acceptable Deferred Defects	6
7. The Maintenance Statement	7
8. Procedures	7
Appendix A Maintenance Statement.....	9
Appendix B Deferred Defect Record Page.....	10
Appendix C Multi Sector Record Section.....	11
Appendix D Single Sector Light Aircraft Record.....	12

THE TECHNICAL LOG

1. Introduction

1.1. The Civil Aviation (Air Operator Certification & Administration) Regulations, Regulation 81 requires that a Technical Log shall be kept in respect of all aircraft registered in Barbados or an aircraft operated by the holder of an AOC.

1.2 The Civil Aviation (Aircraft Operations) Regulations, 11 states that no person shall operate an aircraft, unless such aircraft has on board, in addition to other documents, a current and approved Aircraft Journey Log and an Aircraft Technical Log. The BCAD will consider on an individual basis the approval of a combined Aircraft Journey Log and Aircraft Technical as one document.

2. Definitions and Regulations

2.1.Journey Log: Means a form signed by the PIC of each flight that records the registration of the aircraft, the name of each crew member and their duty assignments, the type of flight, the date, place and time of arrival and departure.

2.2.Technical Log: Means a document pertaining to an aircraft

- (a) for recording defects and malfunctions discovered during operations;
- (b) for recording details of all maintenance checks carried out whilst the aircraft is operating between scheduled visits to the main maintenance facility and
- (c) which contains operating information relevant to flight safety and maintenance data needed by the operating crew.

2.3.The following regulations apply:

- (a) (Aircraft Operations) Regulations, 11 Documents to be carried.
- (b) (Air Operator Certification & Administration) Regulations, 81 AOC Holders Aircraft Technical Log.
- (c) (Air Operator Certification & Administration) Regulations, 35 (4) AOC Holders Aircraft Technical Log-Journey Records Section.
- (d) (Air Operator Certification & Administration) Regulations, 79 (1) Aircraft Technical Log Entries: AOC Holders.
- (e) (Air Operator Certification & Administration) Regulations, 81 (1) AOC Holders Aircraft Technical Log-Maintenance Records Section
- (e) (Air Operator Certification & Administration) Regulations, 81 (1) (b) Release to Service or Maintenance Section Records of the Technical Log.

3. BCAD Requirements

3.1 In addition to the particulars required by the Civil Aviation Regulations, the Technical Log may contain maintenance control and Flight Crew advisory information for use during the routine operation of the aircraft, between scheduled maintenance inputs to main base.

3.2 The log must contain pre-serialised Sector Record Pages of a design acceptable to the BCAD, provision to record acceptable deferred defects which are awaiting rectification, and a Maintenance Statement.

3.3 A specimen Maintenance Statement is shown at Appendix A

3.4 If a number of consecutive flights occur within the same period of 24 hours at the same aerodrome with the same aircraft commander, all entries may be made at the end of the last flight, unless a defect becomes known to the commander in the meantime, which must be entered as it occurs.

4. **The Sector Record Page.**

4.1 Each sector record page must include provision to record:

- (a) The aircraft type and registration.
- (b) The date, place of departure and place of arrival and times of take-off and landing.
- (c) The name and address of the Operator (the address may be omitted if it is printed on the title page to the log).
- (d) Particulars of any defects.
- (e) The post-flight signature of the aircraft commander and the date.
- (f) The fuel state on arrival.
- (g) Details of rectification action taken in respect of defects together with a pre-printed Certificate of Release to Service (CRS), in such a position as to be readily identifiable with the defect entry to which it relates. (Provision should also be made for CRS signature with the date and authority for issue)
- (h) The quantity of fuel and oil uplifted and the quantity available in each tank at the beginning of each flight. (See Note.)

NOTE: the format in which fuel quantities are recorded must encourage the identification of any gross errors present in the quantity of fuel on board, e.g. by comparison of the calculated and actual fuel uplifted, using the recorded fuel on arrival. Common units of quantity should be used within columns or provision should be made in the record for the conversion of units to a standard.

- (i) the running total of flying hours so that the flying hours remaining to the next inspection can be readily determined, and the date of such inspection.
- (j) The completion of preflight and/or daily inspections.
- (k) The times when de-icing was started and completed, unless otherwise agreed with the BCAD.

4.2 This list is not exhaustive and additional records may be required. The supplementary information to be recorded should be assessed by the Operator in consultation with the relevant maintenance organisation and submitted for agreement to the BCAD.

4.3 The Sector Record Page layout should be divided to show clearly what is required to be completed after flight and what is required to be completed in preparation for the next flight typical layouts for Sector Record Pages are shown in the Appendices. Appendix C Multi

Sector aircraft record Appendix D Single Sector light aircraft record Appendix E Single Sector large aircraft record.

4.4 In addition to the above information on the Sector Record page, the following maintenance information must be either on the Sector Record page or in a maintenance section of the Technical Log.

- (a). The current aircraft maintenance release and / or an airworthiness release.
- (b). The current maintenance status of the aircraft, to include maintenance due to be performed on an established programme and maintenance that is due to be performed that is not on an established programme. (out of phase maintenance)
- (c). Details of all deferred defects that affect the operation of the aircraft.

5 Retention of Records

5.1 All entries made on a Sector Record Page must be made in duplicate with provision for one copy of each entry to be removed from the Technical Log and retained on the ground before the next flight commences.

5.2 In the case of an aeroplane not exceeding 2730 kg MTWA or a helicopter, if it is not reasonably practicable for a copy of the Sector Record Page to be kept on the ground, it may be carried in the aeroplane or helicopter in a container approved for the purpose by the BCAD.

5.3 Arrangements must be made to extract information recorded in the Sector Record Page for use by the maintenance organisation. Additional copies of the page may be necessary for this purpose.

5.4 All entries in the Sector Record Page must be retained by the Operator for a period of not less than two years after the particular aircraft has been destroyed or permanently withdrawn from service except that the BCAD may consider a different retention period in a particular case.

5.5 Where the Operator arranges for the relevant maintenance organisation to retain copies of Sector Record Pages on his behalf, he will nevertheless continue to be responsible for the records. If he ceases to be the operator of the aircraft, he also remains responsible for transferring the records, if requested, to any other person who becomes the Operator of the aircraft.

6 Acceptable Deferred Defects

6.1 A procedure for deferring the rectification of defects where this is permitted by the Minimum Equipment List (MEL) for that aircraft, should be published in the Operations Manual and Maintenance Procedures Manual or Maintenance Control manual. A suitable record sheet for this purpose is shown at Appendix B.

6.2 The BCAD will investigate operators' procedures for deferring defects at the time of application for an AOC to ensure that they will be effective, in practice, and not result in

defects remaining unrectified for minimum periods. Any change in procedures must be notified to the BCAD for further investigation.

6.3 When a defect is to be transferred, the 'Action Taken' column of the Sector Record page should be completed in the following manner:

Transferred to ADD Record sheet serial No.....Item No.....

Signed.....Date.....

6.4 Details of the defect, Sector Record page serial number, signature of person authorising deferral and date (or aircraft hours) of origin, should be entered on the ADD Record. The period for which the deferred defect may be carried should also be stated in accordance with the company procedure.

6.5 On rectification of the defect it is necessary to enter on the current Sector Record page:

- (a) The ADD Record sheet serial number and item number,
- (b) Details and date of the original defect and of the rectification, together with the applicable component change date or other action, and to Complete the Certificate of Release to Service. The 'Defect Cleared' columns of the ADD Record must then be signed and dated.

6.6 Completed ADD Records may be removed from the Technical Log at each Scheduled Maintenance Inspection. Where single defects remain current on each page, resulting in numerous pages being carried in the log it is acceptable to consolidate these entries on to a single page for ease of assessment by the crew. When this occurs the original date of entry must be retained so that the duration of entry can be readily established.

6.7 Where deferred defects are transferred to worksheets at maintenance periods there should be a procedure to ensure that defects which have not been actioned are re-entered on a new deferred defect record sheet, ensuring that the original date of the defect is retained. In general all outstanding deferred defects should be cleared at a scheduled maintenance inspection and only in exceptional circumstances should an aircraft come off an SMI with a deferred defect.

7 The Maintenance Statement

7.1.The purpose of the Maintenance Statement is to advise the Aircraft commander and maintenance personnel of the forthcoming maintenance requirements.

7.2.The statement is to be completed by the maintenance organisation following each scheduled maintenance inspection and should include details of all out-of-phase inspections and component changes etc., falling due prior to the next SMI. Where these are too numerous to include in a Maintenance Statement or the Operator wishes to provide for repeated inspections etc., alternative procedures and recording systems may

he adopted with the agreement of the BCAD.

7.3. A specimen Maintenance Statement is shown at Appendix A.

8 Procedures

8.1. Detailed instructions should be given to flight crew in the Operations Manual and to maintenance engineers in the Maintenance Procedures Manual and Maintenance Control Manual on the manner in which the technical Log is to be used and completed. These should be repeated in the log itself if necessary to ensure a disciplined response by pilots and engineers.

8.2. Specific guidance should be given in respect of special inspections, line Maintenance Requirements, Notices to Crew, External Damage Recording systems and compliance with short-term mandatory requirements etc., which may also be included in the Technical Log.

8.3. As a general rule, one legible copy of each Sector Record Page should remain in the Technical Log for a sufficient period to permit the identification of a repetitive defect by maintenance engineers at the point of operation. Similarly deferred defect records should not be removed prematurely. It will be necessary to ensure a balance exists between permitting a degree of defect analysis on the aircraft on the one hand and preventing a situation in which too many pages, particularly of deferred defects, obscure the airworthiness status of the aircraft.

8.4. In cases when the copy of the Sector Record Page provided for maintenance control is not extracted directly by the Maintenance Organisation, Operations Manual procedures must show the responsibilities of the Operator for removing and dispatching completed pages to that organisation. It is essential that details of flights undertaken and any defects, whether rectified or deferred are advised promptly to the maintenance organisation so that maintenance planning and spares provisioning can be effective.

APPENDIX A

MAINTENANCE STATEMENT Aircraft Type: Registration Mark:

The next **SCHEDULED MAINTENANCE INSPECTION** is due at: Hours on :

The following out of phase inspection/component changes are due before the next Scheduled Maintenance inspection specified above:

Item.	DUE		Sector Log Reference on completion
	Hours	Date	

APPENDIX B

DEFERRED DEFECT RECORD PAGE

Page Serial No: Aircraft Registration:									
Deferred Defect Details from Sector Record		Defect deferred to (State Limit)	Defect Cleared						
No	Sector Record Page No		Defect	Signed	Date	MEL Reference	Sector Record Page No.	Signed	Signed
<p>Before the defect cleared sections of this page are completed, details of the deferred defect, its number, the sector record page number together with the rectification action, must be recorded and certified on the current sector record page to provide a duplicate record.</p>									

APPENDIX C – Multi Sector Record

Operator:	Operator:		Operator:		Operator:		
Sector Star. No.	No. 004752/4		No. 004752/3		No. 004752/1		
Air/Trip#	Type	Type	Type	Type	Type	Type	
A/C/Peg.	G-	G-	G-	G-	G-	G-	
Date							
Flight Date	Airport	Hrs	Min	Airport	Hrs	Min	
Tak-off	Land			Airport	Hrs	Min	
Time	Time			Airport	Hrs	Min	
Log Time	Total	To	From	Total	To	From	
Landing	Log Time	Take Off	Prev Sheet	Landing	Take Off	Prev Sheet	
Sector State	Nil/ AS ENTERED						
(Leave if not applicable)							
Captains Signature							
Date	Arrival	R	Total	L	R	Total	
FUEL	Uplift	Kg	Total	L	R	Total	
Departure	Kg	Total	L	R	Total	L	
Arrival	Kg	Total	L	R	Total	L	
Departure	Kg	Total	L	R	Total	L	
Uplift	Uplift	Kg	Total	L	R	Total	L
1D	Departure	Kg	Total	L	R	Total	R
Pre-flight	Check	Intermediate	Pre-flight	Intermediate	Pre-flight	Intermediate	Pre-flight
Check	Check A / CHECK B						
Date / Time	Date	Time	Date	Time	Date	Time	Date
Signature							
Ground De-tac Start / Finish							
Captains Assistance:							

AUTHORITY DATE	SIGN	ACTION TAKEN	REF.	DEFECT
CERTIFICATE OF RELEASE TO SERVICE:				
<p>The work recorded below has been carried out in accordance with the requirements of the Civil Aviation Regulations for the release to service, and in full respect of the Civil Aviation Authority's instructions for the issue being in force.</p> <p>Any services rendered to the operator by the user of the aircraft, or the provision of new services, require re-issue of the certificate.</p> <p>Any services rendered to the operator by the user of the aircraft, or the provision of new services, require re-issue of the certificate.</p>				
No. 004752				

APPENDIX D – Single Sector Light Aircraft Record

This is a specimen only. Operators may need to change the layout or introduce additional items to suit their individual requirements.