



MAINTENANCE OPERATION PROCEDURE (MOP)

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SECTION 0. INTRODUCTION

0.1. FOREWORD

This Maintenance Operation Procedure (MOP) is issued in accordance with the requirements of the Civil Aviation Directive (CAD) of the Civil Aviation Authority of Malaysia (CAAM).

This MOP is the property of Gading Air Services (GAS) and issued under the authority of the Accountable Manager (AM), Gading Air Services.

This MOP shall be used to co-ordinate all continuing airworthiness management activities and functions to ensure compliance with regulatory requirements for Continuing Airworthiness Management Organization (CAMO) and Air Operator Certificate (AOC) approvals issued to GAS by the CAAM.



This MOP is not intended to conflict with or override the Malaysian Civil Aviation Regulations (MCAR) or any other relevant aviation authorities' requirements.

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0.3. LIST OF EFFECTIVE PAGES

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DATE	02.09.2024	DATE	02.09.2024

0.5. DISTRIBUTION LIST

It is the responsibility of the registered holders to keep this MOP remains up to date whenever new revision is issued and approved.

COPY	ORGANIZATION	HOLDER	FORMAT
1	GAS	Technical Publication	Paper
2	PLPGU PDRM	Operation Control Center	Soft Copy
3	GAM	Technical Publication	Soft Copy

0.6. ABBREVIATION LIST

This is to list all the abbreviations used in this MOP.

AD	Airworthiness Directive
ADD	Acceptable Deferred Defect
AJL	Aircraft Journey Log
AM	Accountable Manager, Gading Air Services
AMO	Approved Maintenance Organisation
AMP	Aircraft Maintenance Program
AOC	Air Operator's Certificate
AOG	Aircraft On Ground
ARR	Airworthiness Review Report
ARS	Airworthiness Review Staff
CAAM	Civil Aviation Authority of Malaysia
CAD	Civil Aviation Directive
CAM	Continuing Airworthiness Manager, Gading Air Services
CAME	Continuing Airworthiness Management Exposition
CAMO	Continuing Airworthiness Management Organisation
CAT	Commercial Air Transport
C of A	Certificate of Airworthiness
CEO CAAM	Chief Executive Officer of CAAM
CRS	Certificate of Release to Service
FOM	Flight Operations Manager
GAM	Galaxy Aerospace (M) Sdn. Bhd.
GAS	Gading Air Services
LOPA	Layout of Passenger Accommodations
MBP	Mass and Balance Programme
MBR	Mass and Balance Report
MCAR	Malaysia Civil Aviation Regulations 2016
MCGS	Mass and C of G Schedule
MEL	Minimum Equipment List
NCR	Non-Compliance Report
PTF	Permit To Fly
QAD	Quality Assurance Department
QAM	Quality Assurance Manager
SB	Service Bulletin
SMI	Scheduled Maintenance Inspection
SRM	Structure Repair Manual

0.7. TERM USED WITHIN THIS MOP

When used in the MOP, the following terms shall have the following meaning:

"Shall" or "must" means an action verb in the imperative sense means that the application of a rule or procedure or provision is mandatory.

"Should" or "may" means that the application of a procedure or provision is recommended.
"May" means that the application of a procedure or provision is optional.

"No person may..." or "a person may not..." means that no person is required, authorized or permitted to do the act concerned.

"Approved" means the Authority has reviewed the method, procedure or policy in question and issued a formal written approval.

"Acceptable" means the Authority has reviewed the method, procedure or policy and has neither objected to nor approved its proposed use or implementation.

"Prescribed" means the authority has issued a written policy or methodology which imposes either a mandatory requirement, if it states "shall" or "must" or an action verb in the imperative sense, a recommended requirement if it states "should" or a discretionary requirement if it states "may".

"Note" is used when an operating procedure, technique, etc., is considered essential to be emphasized.

"Caution" is used when an operating procedure, technique, etc., may result in damage to equipment if not carefully followed.

"Warning" is used when an operating procedure, technique, etc., may result in personnel injury or loss of life if not carefully followed.

SECTION 1. MAINTENANCE OPERATION PROCEDURES

1.1. AIRCRAFT DAILY CHECKS PROCEDURE

- 1.1.1. To provide guidelines and briefing to contracted AMO on handling of aircraft arrival, departure and daily check.
- 1.1.2. Supervise the arrival, departure and daily check contracted AMO ground crew to ensure that the engineering functions required during the check are carried in a safe and proper manner, and within the assigned time frame.
- 1.1.3. To supervises maintenance activities to ensure work is performed to meet the required quality standards. This is also done to make sure the aircraft is safe to fly.

1.2. AIRCRAFT STATUS REPORT

- 1.2.1. Purpose of this report is to provide a summary of the fleet technical status highlighting outstanding defects and a general overview of the aircraft serviceability status.
- 1.2.2. The ASR is prepared by the AMO after every last flight of the day. The AMO vets all incoming AJLs and updates ASR as required.
- 1.2.3. All AJLs are vetted for any potential AOG or recurring defects as logged down by the pilots and maintenance crew. These items are then highlighted in the ASR and distributed accordingly in either hardcopy or electronic media.
- 1.2.4. Preventive action may be taken to follow up on potential AOG or historical defects as required.
- 1.2.5. Any deferred defect raised will be also be included in the ASR together with the MEL expiry date for tracking.
- 1.2.6. The ASR report also includes other task cards issued by the CAMO i.e. Line Checks, Component Changes etc. together with any respective due dates for tracking purposes.
- 1.2.7. The AMO will call out for meeting of the respective departments to coordinate and discuss any major events relating to aircraft technical status as the need arises. Typically, this will involve reps from Procurement Section, Flight Operations department, CAMO and contracted AMO. Minutes and outcome of this meeting will be reflected in the next ASR.

SECTION 2. MAINTENANCE OPERATION DOCUMENTATION PROCEDURES

2.1. AIRCRAFT JOURNEY LOG

- 2.1.1. To provide guidelines and briefing to operator and contracted AMO on handling of aircraft journey log entry.
- 2.1.2. Supervise the aircraft journey entry by the operator and contracted AMO ground crew to ensure that all maintenance or defect entry correctly.
- 2.1.3. Aircraft Journey Log utilization can refer to GAS/CAME/2023 Part 1.1.1.
- 2.1.4. The AJL is used to report all defects or discrepancies of the aircraft. It is entered either by maintenance crew or flight crew.
- 2.1.5. The AJL is serialized and printed in book of 50 pages each. Each page has 4 copies and are colored as follows:
 - a. First copy - White (CAMO copy),
 - b. Second copy - Blue (Subcontracted CAMO copy),
 - c. Third copy - Pink (Book copy),
 - d. Fourth copy - Yellow (Reserve copy).
- 2.1.6. A new AJL page is to be used whenever:
 - a. There is any defect entry,
 - b. At the end of each day,
 - c. New flight sector record required.
- 2.1.7. The LAE must certify the action column before removing the used page.
- 2.1.8. First, second and fourth copies are to be removed by the CAMO at interval of no more than 1 month. The first and second copies is to be kept into a dedicated storage where CAMO will collect them at appropriate interval. The third copy will remain in the AJL book. All these 3 copies of AJL are not to be removed unless the entire entered defects are certified accordingly.

2.1.9. AJL instruction for use:

Number	Description
1	Date of the AJL entry
2	Aircraft registration
3	Aircraft location during AJL entry
4	Aircraft serial number
5	Previous BMRC reference
6	Previous BMRC date
7	Title of next nearest calendar due inspection
8	Date of next nearest calendar due inspection
9	Title of next nearest hour due inspection
10	Date of next nearest hour due inspection
11	Flight (sortie) number
12	Total fuel uplifted before flight, in kg
13	Aircraft total fuel before flight departure, in kg
14	Aircraft total fuel after flight arrival, in kg
15	Total engine oil uplifted before flight, in qt
16	Total MGB oil uplifted before flight, in qt
17	Total TGB oil uplifted before flight, in qt
18	Total hydraulic oil uplifted before flight, in qt
19	Signature of LAE performing pre-flight maintenance tasks
20	Authorization stamp of LAE performing pre-flight maintenance tasks
21	Time of LAE performing pre-flight maintenance tasks
22	Signature of pilot performing pre-flight maintenance tasks
23	Authorization stamp/number of pilot performing pre-flight maintenance tasks
24	Time of pilot performing pre-flight maintenance tasks
25	Name of pilot/captain/instructor for the flight
26	Name of co-pilot/1 st officer/instructor for the flight
27	Location of aircraft take-off
28	Location of aircraft landing
29	Engine start time of the flight
30	Aircraft take-off time of the flight
31	Aircraft landing time of the flight, prior to shutdown
32	Engine shutdown time of the flight
33	Total time from take-off to landing of the flight
34	Total time from engine start to shutdown of the flight
35	Total aircraft landing of the flight
36	Total engine flight time (same with item 33)
37	Total Gas Generator cycles of the flight
38	Total Power Turbine cycles of the flight
39	Nature of flight
40	Sum of item 33
41	Sum of item 34
42	Sum of item 35
43	Sum of item 36

Number	Description
44	Sum of item 37
45	Sum of item 38
46	Total after last flight from previous AJL page
47	Sum of item 40 and item 46
48	Sum of item 41 and item 46
49	Sum of item 42 and item 46
50	Sum of item 43 and item 46
51	Sum of item 44 and item 46
52	Sum of item 45 and item 46
53	List of maintenance activity of the flight, "NIL" if not available
54	Signature of pilot or LAE entering item 53
55	Authorization stamp/number of pilot or LAE entering item 53
56	Time of entry on item 53
57	Rectification of item 53, "NIL" if not available
58	Maintenance release signature of LAE performing item 57
59	Authorization stamp of LAE entering item 57
60	Date of entry of item 57
61	Maintenance release signature of LAE performing Daily Check (before first flight of the day)
62	Authorization stamp of LAE performing Daily Check (before first flight of the day)
63	Date of LAE performing Daily Check (before first flight of the day)

2.2. DEFERRED DEFECT

- 2.2.1. The AJL is also used to record all acceptable deferred defects.
- 2.2.2. All acceptable defects must be entered in the AJL, item 53 and item 57 prior transfer to Acceptable Deferred Defect Form, GAS-015-F (ADD). All details from AJL must be entered to GAS-015-F.
- 2.2.3. Only appropriate type rated LAE may transfer defects to ADD.
- 2.2.4. The ADD copies are normally attached together with AJL in the AJL File.
- 2.2.5. All defects entered in the ADD must first be transferred to AJL prior to carry out any action to rectify the defect.
- 2.2.6. The MEL is not intended to provide for continued operation of an aircraft for an indefinite period with inoperative items. Every effort shall be made to organize repairs and rectification at the earliest opportunity subject to availability of time and spares with priority to performance penalty MEL items and defects that are highlighted by the Pilot after considerations of operational implications, undue increase in workload or where multiple unserviceable items may potentially affect airworthiness.
- 2.2.7. ADD Sample – please refer to the sample copy of ADD. The number corresponds to be indicated numbers on the sample page as marked. The respective columns illustrated are useful information for LAE reference.

**CAMO DEPARTMENT
ACCEPTABLE DEFERRED DEFECT**

AC TYPE	1	REGISTRATION	2	SERIAL NO.	3
BASE	4	APPROVED MEL REFERENCE NO.		5	
DEFECT RAISED				DEFECT CLEARED	
D.D NO:	6	JOURNEY LOG SHEET NO:	9	DATE/ HRS LIMIT DUE:	JOURNEY LOG SHEET NO: 14
DEFECT:	7	WORKSHEET REF:	10	13	WORKSHEET REF: 15
		SIGN & APP:	11		SIGN & APP: 16
MEL REFERENCE:	8	DATE:	12		DATE: 17
DEFECT RAISED				DEFECT CLEARED	
D.D NO:		JOURNEY LOG SHEET NO:		DATE/ HRS LIMIT DUE:	JOURNEY LOG SHEET NO:
DEFECT:		WORKSHEET REF:			WORKSHEET REF:
		SIGN & APP:			SIGN & APP:
MEL REFERENCE:		DATE:			DATE:
DEFECT RAISED				DEFECT CLEARED	
D.D NO:		JOURNEY LOG SHEET NO:		DATE/ HRS LIMIT DUE:	JOURNEY LOG SHEET NO:
DEFECT:		WORKSHEET REF:			WORKSHEET REF:
		SIGN & APP:			SIGN & APP:
MEL REFERENCE:		DATE:			DATE:
DEFECT RAISED				DEFECT CLEARED	
D.D NO:		JOURNEY LOG SHEET NO:		DATE/ HRS LIMIT DUE:	JOURNEY LOG SHEET NO:
DEFECT:		WORKSHEET REF:			WORKSHEET REF:
		SIGN & APP:			SIGN & APP:
MEL REFERENCE:		DATE:			DATE:

Number	Description
1	Aircraft type, eg. EC120B
2	Aircraft registration ,9M-XXX
3	Aircraft serial number
4	Aircraft current base location
5	Aircraft MEL reference number
6	Deferred defect running number, starting 0001
7	Description of deferred defect
8	MEL reference for deferred defect
9	Referenced AJL number for deferred defect
10	Referenced work sheet number
11	LAE signature and authorization number for deferred defect entry
12	Date of deferred defect entry
13	Date or aircraft hours for deferred defect limit
14	Referenced AJL number for deferred defect rectification
15	Referenced worksheet number for deferred defect rectification
16	LAE signature and authorization number for deferred defect rectification
17	Date of deferred defect rectification

2.3. MEL REPAIR CATEGORY

- 2.3.1. To ensure control the amount of deferred defects and indirectly the dispatch reliability of the aircraft, CAAM has mandated the MEL Repair Categories.
- 2.3.2. All defects deferred per the MEL shall now be classified into the following categories:
- a. Category A – As per remarks/exceptions column,
 - b. Category B – 3 days,
 - c. Category C – 10 days,
 - d. Category D – 120 days.
- 2.3.3. The categories and the calendar days identify the time limit for any defect to be deferred.
- 2.3.4. No aircraft shall be released to service if the time limit specified under the MEL repair categories is exceeded unless a concession is obtained.
- 2.3.5. All defects deferred per the MEL shall be according to below procedures:
- a. All deferred defects must bear the MEL number and category. The MEL number must be followed by MEL category prefix written in brackets. When transferring AJL to ADD, the MEL column must bear both information e.g. MEL 25-10 (C),
 - b. The approval holder, deferring the defect is responsible for transferring all the relevant information to the ASR,
 - c. It shall be the responsibility of the approval holder to review all the ADD and to ensure that no MEL ADD is overrun. The approval holder must also annotate in AJL that ADD review has been carried out satisfactorily.
 - d. The CAMO will capture MEL category C and D and transfer this information inside CAMS for further action.

- e. All LAEs must be conversant with the new procedure and the certification requirements.

2.4. NOTICE TO CREW

- 2.4.1. Notice to crew (NTC) is used to bring the attention of the incoming flight and maintenance personnel of any new or exceptional feature or condition that exist in a particular aircraft.
- 2.4.2. The appropriate LAE shall raise an entry in the NTC sheet when any of the following exist in a particular aircraft.
 - a. Whenever a defect visible to the flight crew is deferred, and requires the crew to attend to a condition not expected in the normal mode of operation,
 - b. Whenever a deferred defect requires the immediate attention of the maintenance engineers at the next flight,
 - c. Whenever a modification introduces a new feature, which needs or attracts the attention of flight and maintenance personnel,
 - d. All NTCs must have terminating action,
 - e. NTC is not a certifiable document, but it may be used to highlight maintenance work requirement,
 - f. The validity of NTC must be reviewed by LAE regularly,
 - g. NTC can be cancelled as soon as the abnormal condition has been normalized after defect rectification,
 - h. For NTC entries, which were raised because of modification, the Modification Document terminating date must be stated in the NTC and subsequently cancelled upon NTC review,
 - i. For NTC entries, which were initiated because of maintenance programs, the CAMO shall advise the LAE of the terminating date so that he can annotate it in the NTC.

2.5. MANDATORY OCCURRENCE REPORTING

- 2.5.1. Mandatory Occurrence Report (MOR) details procedures can refer to GAS CAME Part 1.8 Para 1.8.6.
- 2.5.2. MOR is to be used for reporting any accident/incident by any ground personnel and any aircraft ground/air turn back.
- 2.5.3. Technical incident/accident, which causes an aircraft to become unserviceable on ground, shall be reported to the QAM. This shall be copied to the CAM.

2.6. MAINTENANCE CHECK FLIGHT

- 2.6.1. A Flight Release Certificate (FRC) is required prior to each maintenance check flight (MCF), refer to QN for further detail of FRC.

2.7. AIRCRAFT STATUS REPORT

- 2.7.1. Purpose of this report is to provide a summary of the fleet technical status highlighting outstanding defects (especially penalty and time limited ADD) and a general overview of the aircraft serviceability status.

- 2.7.2. The Aircraft Status Report (ASR) is prepared by the CAMO or the subcontractor after every last flight of the day. All incoming AJL collected shall be vetted and updated into ASR as required.
- 2.7.3. All AJLs are vetted for any potential AOG or recurring defects as logged down by the pilots and maintenance crew. These items are then highlighted in the ASR and distributed accordingly in either hardcopy or softcopy.
- 2.7.4. Preventive action may be taken to follow up on potential AOG or historical defects as required.
- 2.7.5. Any ADD raised will be also be included in the ASR together with the MEL expiry date for tracking.
- 2.7.6. The ASR also includes other task cards issued by CAMO with any respective due dates for tracking purposes.
- 2.7.7. CAMO will call out for meeting of the respective parties to coordinate and discuss any major events relating to aircraft technical status as the need arises. Typically, this will involve reps from AMO, Flight Operations and CAMO. Minutes and outcome of this meeting will be reflected in the next ASR.

2.8. QUALITY NOTICE & DISTRIBUTOR PROCEDURES

- 2.8.1. Airworthiness Circulars are issued to bring matters affecting airworthiness to the notice of all staff involved in aircraft maintenance.
- 2.8.2. New Quality Notice (QN) related to maintenance activities shall be distributed to the CAMO for circulation to AMO and Operator.
- 2.8.3. Head of AMO shall ensure that all contracted AMO certifying staff read the QN and understand and comply to the circular.

2.9. LOADING SCHEDULE

- 2.9.1. Procedure for Loading Schedule (LS) shall be referred to Mass and Balance Programme (MBP), GAS/CAMO/MBP/2022, GAS-034-F Main EC120B Loading Schedule and GAS-038-F EC120B Backup Loading Schedule latest revision.