

MASS AND BALANCE PROCEDURE (MBP)

Organisation : GALAXY AEROSPACE (M) SDN BHD

Approval No : CAMO/2016/03

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INTRODUCTION

I. FOREWORD

- a. This Mass and Balance Procedures (MBP) defines the procedures and guidelines for the CAMO personnel managing aircraft mass and balance activities in accordance with the requirements defined in GAM CAME, GAM Mass and Balance Programme (CAAM/MBP) and CAAM CAD 6805.
- b. Under certain circumstances, it may be necessary to deviate from the requirement procedure in the MBP. The alternative solution shall fulfill the original purpose of this MBP, when such a situation arises; deviation should be approved by the QAM.

II. TABLE OF CONTENT


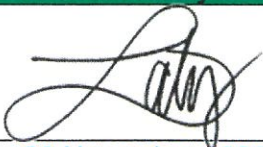
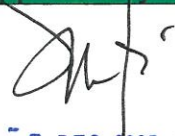
INTRODUCTION	1
I. FOREWORD	1
II. TABLE OF CONTENT	2
III. LIST OF EFFECTIVE PAGES	4
IV. AMENDMENT RECORD	6
V. DISTRIBUTION LIST	8
VI. ABBREVIATION LIST	9
PART 0 GENERAL ORGANISATION	1
0.1 INTRODUCTION	1
0.2 SCOPE	1
0.3 RESPONSIBILITIES	1
0.4 REERENCE	1
0.5 DESCRIPTION OF THE ORGANISATION	2
0.6 CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION	3
0.6.1 WEIGHING ENGINEER	3
0.6.2 DEPUTY CAMM	4
0.7 MANPOWER MANAGEMENT	5
0.8 TRAINING REQUIREMENT	6
0.9 APPLICATION FOR ISSUANCE, VARIATION AND RENEWAL PROCESS OF WE	8
PART 1 MASS AND BALANCE PROCEDURES	1
1.1 INTRODUCTION	1
1.2 SCOPE	1
1.3 RESPONSIBILITIES	1
1.4 AIRCRAFT WEIGHING PREPARATION	2
1.5 WEIGHING EQUIPMENT PROCEDURES	3
1.5.1 M2400 WIRELESS WEIGHING KIT	3
1.5.2 INTERCOMP AC1-25LP PLATFORM SCALE	3
1.6 AIRCRAFT WEIGHING PROCEDURES (STANDARD)	4
1.7 AIRCRAFT WEIGHING PROCEDURES FOR DIFFERENT TYPE OF AIRCRAFT MANAGED	8
1.8 ISSUANCE OF MBR AND MCGS REPORT	10

ISSUE	2
REVISION	1


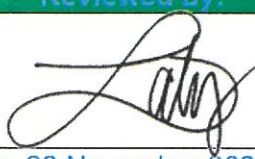

1.9 MASS AND BALANCE RECORDS RETENTION13

III. LIST OF EFFECTIVE PAGES

CAMP Part	CAMP Chapter	Page No.	Issue No	Revision No	Date
INTRODUCTION	I. FOREWORD	1	2	1	29 November 2023
	II. TABLE OF CONTENT	2	2	1	29 November 2023
		3	2	1	29 November 2023
	III. LIST OF EFFECTIVE PAGES	4	2	1	29 November 2023
		5	2	1	29 November 2023
	IV. AMENDMENT RECORD	6	2	1	29 November 2023
		7	2	1	29 November 2023
	V. DISTRIBUTION LIST	8	2	1	29 November 2023
	VI. ABBREVIATION LIST	9	2	1	29 November 2023
		10	2	1	29 November 2023
0	0.1	1	2	1	29 November 2023
	0.2	1	2	1	29 November 2023
	0.3	1	2	1	29 November 2023
	0.4	1	2	1	29 November 2023
	0.5	2	2	1	29 November 2023
	0.6	3	2	1	29 November 2023
		4	2	1	29 November 2023
	0.7	5	2	1	29 November 2023
	0.8	6	2	1	29 November 2023
		7	2	1	29 November 2023
0.9	8	2	1	29 November 2023	

Prepared by:	Reviewed by:	Approved by:
		
Date: 29 November 2023	Date: 29 November 2023	Date: 5 DEC 2023
'Amir bin Abdullah	Zaty Nadhira binti Mohamed Zuhari	Omar bin Ahmad
Deputy Continuing Airworthiness Management Manager	Continuing Airworthiness Management Manager	Quality Assurance Manager

CAMP Part	CAMP Chapter	Page No.	Issue No	Revision No	Date	
1	1.1	1	2	1	29 November 2023	
	1.2	1	2	1	29 November 2023	
	1.3	1	2	1	29 November 2023	
	1.4	2	2	1	29 November 2023	
	1.5	3	2	1	29 November 2023	
	1.6		4	2	1	29 November 2023
			5	2	1	29 November 2023
			6	2	1	29 November 2023
			7	2	1	29 November 2023
	1.7		8	2	1	29 November 2023
			9	2	1	29 November 2023
	1.8		10	2	1	29 November 2023
			11	2	1	29 November 2023
			12	2	1	29 November 2023
	1.9		13	2	1	29 November 2023

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IV. AMENDMENT RECORD

ISS. NO	REV NO	DATE	DETAILS	EFFECTIVE DATE
1	0	04-08-21	1. Initial Issue	04-08-21
2	0	07-09-23	<ol style="list-style-type: none"> 1. <u>All pages (as applicable)</u> <ol style="list-style-type: none"> a. All pages reformatted to standardised as per CAAM/MBP and CAMP b. All content revised to establish detailed procedures on Mass and Balance activities. 2. <u>Cover Page</u> <ol style="list-style-type: none"> a. Updated issue no., revision no., issue date and revision date. 3. <u>I. Foreword</u> <ol style="list-style-type: none"> a. Introduce chapter to reflect CAAM/MBP and CAMP content. 4. <u>II. Table of Content</u> <ol style="list-style-type: none"> b. Updated chapter title, contents and page number. 5. <u>III. List of Effective Pages</u> <ol style="list-style-type: none"> a. Updated chapter and subchapter, page no., issue no. revision no. and date of the affected pages. 6. <u>IV. Amendment Record</u> <ol style="list-style-type: none"> a. Updated amendment record 7. <u>PART 0 General Organisation</u> <ol style="list-style-type: none"> a. Revised Chapter title and content to reflect CAAM/MBP and CAMP content. 8. <u>PART 1 Mass and Balance Procedure</u> <ol style="list-style-type: none"> a. Revised Chapter title and content to establish detailed procedures on mass and balance activities 	07-09-23
2	1	29-11-23	<ol style="list-style-type: none"> 1. <u>All pages</u> <ol style="list-style-type: none"> a. <u>Reformatted page numbering</u> 2. <u>Cover page</u> <ol style="list-style-type: none"> a. <u>Updated revision no. and revision date.</u> 3. <u>II. Table of content</u> <ol style="list-style-type: none"> a. <u>Updated chapter title and page number.</u> 4. <u>III. List of Effective Pages</u> <ol style="list-style-type: none"> a. <u>Updated revision no. and revision date of the affected pages</u> 5. <u>IV. Amendment Record</u> <ol style="list-style-type: none"> a. <u>Updated record of amendment.</u> 	Refer III. List of Effective Pages for QAM approval date

ISS. NO	REV NO	DATE	DETAILS	EFFECTIVE DATE
2	1	29-11-23	<p>6. Chapter 0.6 Continuing Airworthiness Management Organisation</p> <p>a. Revised organisation chart to reflect CAME content.</p> <p>b. 0.6.1 – introduced new chapter to reflect DCAMM responsibilities under GAM CAMO weighing capabilities.</p> <p>7. Chapter 0.9 Application for Issuance, Variation and Renewal Process of WE</p> <p>a. Revised title and procedure to include variation process.</p> <p>b. Revised chapter reference from CAAM/MBP.</p> <p>c. Revised procedures to include requirement to update List of Mass and Balance Approval Holder and submit to CAAM for notification.</p> <p>8. Chapter 1.5 Weighing Equipment Procedure</p> <p>a. Revised procedures to establish detailed procedures on monitoring of weighing equipment calibration due date.</p> <p>9. Chapter 1.6 Aircraft Weighing Procedures (Standard)</p> <p>a. Revised procedures on the tolerance to be used for two consecutive and independent measurement.</p> <p>b. Revised Standard Aircraft Weighing Procedures Flowchart</p> <p>10. Chapter 1.7 Aircraft Weighing Procedures for Different Type of Aircraft Managed</p> <p>a. Amended type error in the AMM reference.</p> <p>b. Moved aircraft type reference for A109S and A119 under GAM CAMO Aircraft type capabilities.</p> <p>11. Chapter 1.8 Issuance of MBR and MCGS Report</p> <p>c. Revised procedures to include the requirement to update the Mass and Balance Master List.</p> <p>d. Amended MBR and MCGS report distribution to CAAM via soft copy.</p> <p>12. Chapter 1.9 Mass and Balance Records Retention</p> <p>a. Introduced new chapter to establish detailed procedures on Mass and Balance Records Retention</p>	Refer III. List of Effective Pages for QAM approval date

V. DISTRIBUTION LIST

COPY NUMBER	HOLDER	FORMAT
GAM/CAMO/MBP/MASTER	Quality Assurance Manager GAM CAMO	Paper
GAM/CAMO/MBP/01	Technical Publication – Library GAM CAMO	Paper
GAM/CAMO/MBP/02	CAM Manager GAM CAMO	Paper
GAM/CAMO/MBP/03	Galaxy Aerospace Management System (GAMS) portal	Electronic copy

VI. ABBREVIATION LIST

A/C	Aircraft
AFM	Aircraft Flight Manual
AJL	Aircraft Journey Log
AMO	Approved Maintenance Organisation
AMP	Aircraft Maintenance Programme
CAAM	Civil Aviation Authority of Malaysia
CAAM/MBP	Mass and Balance Programme
CAD	Civil Aviation Directive
CAGM	Civil Aviation Guidance Material
CAME	Continuing Airworthiness Management Exposition
CAMM	Continuing Airworthiness Management Manager
CAMO	Continuing Airworthiness Management Organisation
CAMO/MBP	Mass and Balance Procedure
CAMP	Continuing Airworthiness Management Procedure
CG	Centre of Gravity
CoA	Certificate of Airworthiness
DCAMM	Deputy Continuing Airworthiness Management Manager
FM	Flight Manual
GAM	Galaxy Aerospace (M) Sdn Bhd
GAMS	Galaxy Aerospace Management System
LAE	Licensed Aircraft Engineer
MBR	Mass and Balance Report
MCAR	Malaysian Civil Aviation Regulations
MCGS	Mass and Centre of Gravity Schedule
OEM	Original Equipment Manufacturer
P/N	Part Number
QA	Quality Assurance
QAM	Quality Assurance Manager
RFM	Rotorcraft Flight Manual

ISSUE	2
REVISION	1

S/N	Serial Number
SMI	Schedule Maintenance Inspection
WE	Weighing Engineer
WO	Work Order
WP	Workpack
WS	Worksheet

ISSUE	2
REVISION	1

PART 0

GENERAL ORGANISATIONS

PART 0 GENERAL ORGANISATION

0.1 INTRODUCTION

- a. This Mass and Balance Procedures (MBP) defines the procedures and guidelines for the CAMO personnel managing aircraft mass and balance activities in accordance with the requirements defined in GAM CAME, CAAM/MBP and CAAM CAD 6805.

0.2 SCOPE

- a. This chapter covers the role and responsibilities of weighing engineer within CAMO.

0.3 RESPONSIBILITIES

- a. All weighing engineer personnel

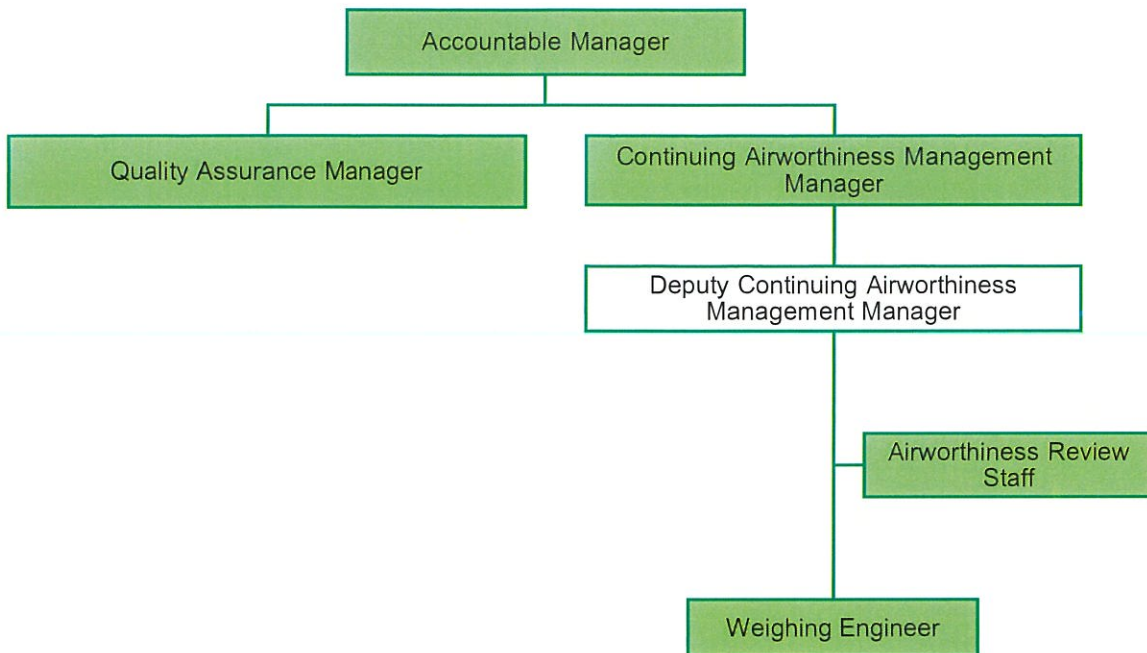
0.4 REERENCE

NO.	REFERENCE	DOCUMENT TITLE
[1]	CAD 6805	Civil Aviation Directive 6805- Mass and Balance Programme
[2]	CAGM 6805	Civil Aviation Guidance Material 6805- Mass and Balance Programme
[3]	CAD 6 Part 3	Mass and Balance
[4]	GAM/CAAM/MBP	Mass and Balance Programme
[5]	GAM/CAAM/CAME	Continuing Airworthiness Management Exposition
[6]	MCAR 2016	Regulation 43 – Aircraft Weight Schedule
[7]	QAN 001	Management of Change

0.5 DESCRIPTION OF THE ORGANISATION

- a. GAM CAMO is approved by CAAM to perform mass and balance activities for aircraft type as listed in CAAM/MBP Chapter 0.2.2.
- b. GAM CAMO is also an approved organisation performing Part M Subpart G and I privileges for aircraft type as listed in CAME Chapter 0.2.6
- c. GAM CAMO utilise GAM-AMO as maintenance provider to meet the requirements of CAAM/MBP and also supported by other CAAM Part 145 AMO to ensure that the aircraft weighing activities are always performed within the controlled environment.
- d. GAM CAMO office is located at:
 - i. CAMO HQ
Suite 11-14, Helicopter Centre,
Malaysia International Aerospace Centre,
Sultan Abdul Aziz Shah Airport,
47200 Subang, Selangor.
 - ii. CAMO PGU
Pangkalan Semenanjung,
Pasukan Gerakan Udara PDRM,
47200 Subang, Selangor.

0.6 CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION



0.6.1 WEIGHING ENGINEER

- a. The Weighing Engineer is a personnel qualified and acceptable to CAAM to certify the MBR and MCGS report and is authorised by CAMO. The Weighing Engineer personnel are responsible for the following functions:
- i. supervise aircraft weighing activities according to their authorisation certificate issued by QA department to ensure compliance to the requirements of CAAM/MBP;
 - ii. ensure the weighing are performed by a maintenance organisation approved in accordance with CAD 8601 or CAD 8602 as applicable;
 - iii. use the weighing equipment as recommended by AMM or equivalent;
 - iv. ensure the weighing equipment used will enable the mass of the aircraft to be established accurately;
 - v. ensure the weighing accuracy is considered satisfactory if the accuracy criteria in CAAM/MBP are met by the individual scales/cells of the weighing equipment used;

- vi. issue and certify MBR and MCGS report in accordance with CAAM/MBP Chapter 2.1 and 3.1 respectively;
- vii. perform any other duties as assigned by CMM or DCMM.

0.6.2 DEPUTY CMM

- a. The Deputy CMM is responsible to assist CMM with weighing activities as per CAAM MBP. He/she is also responsible for the following functions:
 - i. Development and amendment of Mass and Balance Procedures;
 - ii. Development and amendment of all form used for weighing activities;
 - iii. Review and monitor the WE manhours availability periodically;
 - iv. Review the training need and schedule the training course for WE as necessary;
 - v. Ensure each training conducted for each WE is documented and retained.

0.7 MANPOWER MANAGEMENT

- a. This procedure is to ensure that sufficient weighing engineer is always available to perform the mass and balance activities.
- b. The manpower availability is monitored by means of automation manpower management tool which display the balance ratio of manpower to tasks and its sufficiency.
- c. The man hours availability are reviewed periodically in relation to increase number of aircraft and increase in work load.
- d. The planning of man hours is calculated based on the available man hours against the required man hours.

i. Available Man Hours

These are the amount of man hours for personnel able to work (working hours). The working hours for GAM CAMO personnel are:

Time	: 0830 hours – 1730 hours
Break	: 1 hour
Duration	: 8 hours

Thus, the amount of work for a day is 8 hours for each personnel. Based on the company working days, 5 days a week, the available working hours for one personnel in a year, 52 weeks, is:

$$[52 \text{ (weeks/year)} \times 5 \text{ (days/weeks)} \times 8 \text{ (hours/day)}] - [14 \text{ (Annual Leaves/year)} \times 8 \text{ (hours/day)}] - [7 \text{ (Medical Leave/year (50\% utilisation)} \times 8 \text{ (hours/day)}] - [18 \text{ (Public Holiday/year)} \times 8 \text{ (hours/day)}] - [260 \text{ (unproductive hours/year)}] = \mathbf{1508 \text{ hours/year}}$$

ii. Required Man Hours

These are the man hours for a CAMO personnel to complete a particular task. The man hours are then total up to achieve the required man hours for each personnel within GAM CAMO.

The required man hours are the amount of a personnel working hours that has to be provisioned in this department in order to accomplish all the work and functions as detailed in this chapter.

- e. The current status of total man hours available in GAM CAMO can be referred to Manpower Resources and Management Tool Form (GAM/C-052). Refer CAN 31 for the manhours available for Weighing Engineer

0.8 TRAINING REQUIREMENT

- a. The main purpose for training is to equip WE personnel with the necessary skills, knowledge and work etiquette to carry out the functions of, and satisfy the responsibilities associated with, the CAAM CAD 6805 mass and balance programme.
- b. CAMM / DCAMM shall be responsible to review the training needs yearly or when significant changes occur with the CAAM regulations, organisation procedures and/or the aircraft types listed in CAAM/MBP Chapter 0.2.2 and to schedule the training course for all WE personnel as necessary.
- c. CAMM / DCAMM shall submit training request to Training Department. The Training Department shall formulate a Training Schedule monthly based on the training request. New course may be developed after appropriate Training Requirement analysis has been carried out.
- d. CAMM / DCAMM shall submit any additional training proposal to Training Department for selection of Training Centres and budget application. Course that are not within the capability of GAM shall be outsourced to an organisation that is acceptable to CAAM. Training Department shall assist wherever possible in the out-sourcing of courses for WE personnel.
- e. The type of training that is required for all WE personnel are listed in the following table:

No	Course	Position	Remarks	
		WE	Initial	Continuous
1	CAME	M	/	/
2	Mass and Balance Programme	M	/	/
3	Mass and Balance Procedure	M	/	/
4	Human Factor	M	/	/
5	Air Legislation	M	/	/
6	Safety Management System	M	/	
8	Aircraft General Familiarisation	M	/	
9	Mass and Balance Training	M	/	

Legend

M	Mandatory
O	Optional

- f. Initial training is provided to ensure that all personnel are equipped with the basic knowledge, skills and experience to enable them to perform mass and balance activities on aircraft.
- g. Continuous training is also required to ensure that all personnel are continuously trained to familiarise on changes with the CAAM regulations, organisation procedures and/or the aircraft types listed in CAAM/MBP Chapter 0.2.2.
- h. Continuous Training may be given in the following forms:
 - i. Formal Classroom – formal classroom training to be conducted by qualified instructor every 2 years.
 - ii. Briefing Session – semi-formal training by appropriate instructor, using training video or other training aids, to provide update on changes to the organisation policy and procedures which may or may not be covered by the formal classroom training.
 - iii. Circulation – by circulation of Continuing Airworthiness Notices (CAN) through GAMS Portal. CAMM / DCAMM shall ensure that all CAMO personnel read and understood the content of the CAN.
- i. DCAMM shall ensure that each training conducted for CAMO personnel is documented and stored in their personal files.

0.9 APPLICATION FOR ISSUANCE, VARIATION AND RENEWAL PROCESS OF WE

CHART	REMARKS
<pre> graph TD A[Nomination of WE] --> B[Internal assessment and compilation on related documents required by CAAM.] B --> C[INITIAL/VARIATION] B --> D[RENEWAL] C --> E[Application on Approved Signatory to CAAM for acceptance] E --> F[Assessment by CAAM] D --> G[QA will notify Approved Signatory via email 30 days prior to expiry] G --> H[Application on Company Approval to QAM] F --> I[Company approval issued by QA only upon acceptance by CAAM for Approved Signatory] H --> I I --> J[Approval stamp issued by QA to Approved Signatory and registered in the QA record] J --> K[Approved Signatory shall perform the task i.a.w. scope of approval based on each personnel certificate] </pre>	<ul style="list-style-type: none"> Nomination by CMM. Refer to GAM/CAAM/MBP Chapter 2.4 and Chapter 3.4 for Approved MBR & MCGS Signatory Compilation on related data and assessment by QA on the nominated WE Initial / variation application submitted by QA to CAAM Renewal application submitted by WE to QAM Organisation Approval and stamp approval issued and controlled by QA List of Mass and Balance Approval Holder (GAM/C-042) revised and updated by CMM Each revision of GAM/C-042 submitted by CMM to CAAM for notification

Figure 1 Issuance, Variation and Renewal Process of WE

PART 1

MASS AND BALANCE

PROCEDURES



ISSUE	2
REVISION	1

PART 1 MASS AND BALANCE PROCEDURES

1.1 INTRODUCTION

Aircraft mass and balance refers to the distribution of mass and the positioning of various components, such as fuel, passengers, cargo, and equipment, within an aircraft. It is a critical aspect of flight operations that ensures the aircraft remains stable and within its designed operational limits.

1.2 SCOPE

This section outlines the procedures and guidelines for the accomplishment of aircraft weighing so that the aircraft may be correct loaded during operation.

1.3 RESPONSIBILITIES

All related personnel in GAM CAMO.

1.4 AIRCRAFT WEIGHING PREPARATION

- a. CAMO Planner shall notify CMM and the WE for aircraft weighing activities within reasonable days in advance.
- b. The CAMO Planner shall submit a request to CMM to perform an aircraft weighing together with the proposed date for the weighing activities and notify the respective maintenance contractor for aircraft weighing within reasonable days prior to the aircraft weighing activity.
- c. CAMO Planner shall coordinate the aircraft weighing activity and raise worksheet accordingly to contracted AMO in accordance with CAMP Chapter 3.9.
- d. As part of the aircraft weighing preparation, the following task shall be performed by WE via form GAM/C-039 accordingly:
 - i. Identification on aircraft details
 - ii. Identification on reason of weighing
 - iii. Identification on related publication reference
 - iv. Identification on tools and weighing equipment involved
 - v. Verification on equipment list, its quantity, mass and location on aircraft
 - vi. Supervise the weighing process and ensure the weighing shall be carried out in accordance with instructions and recommendations of the aircraft TC holder and weighing scale manufacturer as applicable. If such data is not available, the CAMO shall be responsible for developing appropriate weighing instructions for its particular aircraft as may be agreed by the CAAM.
- e. In case where the aircraft is under maintenance inspection, the weighing activity may be executed, provided that all the required parts/ component are installed in their dedicated location.

1.5 WEIGHING EQUIPMENT PROCEDURES

- a. WE shall use the weighing equipment as recommended in the AMM or as listed in CAAM/MBP para 1.5.2.
- b. WE shall raise MOC as per QAN 001 when using weighing equipment other than listed in CAAM/MBP para 1.5.2.
- c. WE shall monitor the weighing equipment calibration due date in conjunction with Calibrated Tool Master List issued by GAM AMO Tool Storekeeper.
- d. WE shall ensure that the weighing equipment that need to be calibrated are returned to GAM AMO tool store.
- e. WE shall ensure any equipment used for weighing are properly calibrated, zeroed and used in accordance with the manufacturer instruction.
- f. The procedures for using the weighing equipment shall be referred to Chapter 1.5.1 and 1.5.2 below.

1.5.1 M2400 WIRELESS WEIGHING KIT

- a. Refer Jackson Aircraft Weighing System LLC, Wireless Weighing Instruction M2400 Wireless Laptop Scale System, year revised 2018 or latest revision for the details procedure.

1.5.2 INTERCOMP AC1-25LP PLATFORM SCALE

- a. Refer AC1-25LP Ops/Cal, Revision1, dated June 2003 or latest approved revision for the detail's procedure.

1.6 AIRCRAFT WEIGHING PROCEDURES (STANDARD)

- a. The following procedures shall be performed by the nominated LAE, unless marked with * which shall be performed by WE.
- b. Review basic equipment list of aircraft to be weighed. Check that all equipment's are in their respective locations (as in flight). Update above list to reflect any changes.
- c. Remove all loose articles or equipment which will not be included in above basic equipment list.
- d. Position all Flight Controls and Main Rotor Blades or Main Landing Gear (where applicable) in weighing configuration
- e. For load cell type weighing scale:

1. Position aircraft jacks under jacking points of the aircraft. Secure ring jack adapters on aircraft jacks. Ensure the ring adapters are centred flush on ram before tightening set screws (if applicable).

NOTE: Ring jack adapter come with the weighing kit

2. Secure the load cells (Red, Yellow, Blue or Green) on ring jack adapters.

NOTE: Ensure that load cells are fully threaded into ring jack adapters and are not touching the aircraft.

WIRED LOAD CELL

3. *Connect weigh computer cables to load cells. Observe cables and load cells according to colour coding.

CAUTION: The cables and load cells (colours) are not interchangeable.

4. *Check power source voltage and connect correct power cable to weigh computer. Power up and update weigh computer "SET UP". Record the calibration date; and

5. *Select "WEIGH" mode on the weight computer when aircraft is ready for weighing. When "LIFT AIRCRAFT" message flashes the aircraft is ready for jacking; or

NOTE: Prior to entering "WEIGH" mode, check all load cells are not touching the aircraft, load cells cables are not crossed, and aircraft wheels brakes are released before jacking.

WIRELESS LOAD CELL

6. *Power "ON" the weighing device. Check the connection signal.
7. *Reset all the load cell reading to ZERO using zero all buttons. Check each channel for ZERO and the aircraft is ready for jack.

NOTE: Prior to entering the next weighing procedure, check all load cells are not touching the aircraft, load cells cables are not crossed, and aircraft wheel brakes are released before jacking.

8. Jack aircraft up in level attitude to prevent inducing side loads into jack points that could cause jacks to slip off the pads or overload jack points and damage structure
 - f. For platform type, push or move the aircraft with tow truck until each tyre is located on the weighing platform then detach from the tow truck.
 - g. Level the aircraft (refer to aircraft manufacturer maintenance data for detail procedure).
 - h. Check that all wheels are clear off ground, remove inclinometer or any other measuring equipment if applicable. Check that all doors, windows and panels are closed and check all aircraft fuel drain points for fuel (where applicable).
 - i. *Allow weigh computer reading to stabilize and record the measurement.
 - j. For load cell type weighing scale: Lower aircraft in level position slowly until all load cells are completely clear of jacking points. For platform type weighing scale: Push or move the aircraft until all the tyres are off the platform.

CAUTION: To obtain error free and good zero return, it is important the load cells or platforms are completely clear of aircraft and related interface hardware (connectors, cables, cells) are not removed, distributed, or disconnected.

- k. *Allow weigh computer reading to stabilize and record the measurement.
- l. Rotate the load cells or the platform and note their new locations. Repeat weighing procedure item "e" to "k", until two sets of two consecutive and independent measurements are obtained, and the figures are within tolerance of **0.1% from the Maximum Certificated Take-Off Mass (MCTOM) of the aircraft.**



ISSUE	2
REVISION	1

- m. Remove all related weighing equipment and prepare aircraft for return to service.
- n. Upon completion of aircraft weighing, LAE shall sign the maintenance release to service on the work sheet.

ISSUE	2
REVISION	1

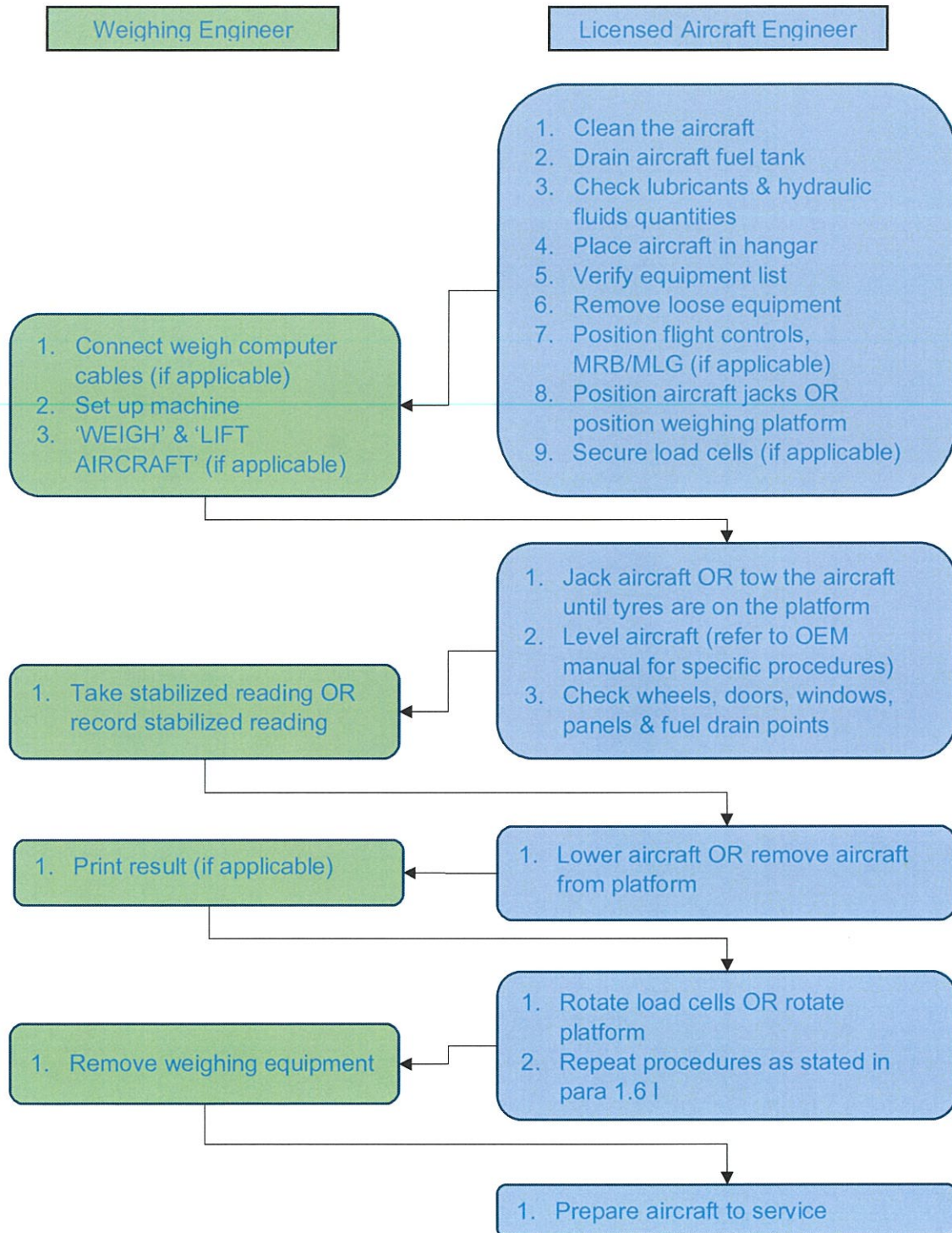


Figure 2 Standard Aircraft Weighing Procedures Flowchart

1.7 AIRCRAFT WEIGHING PROCEDURES FOR DIFFERENT TYPE OF AIRCRAFT MANAGED

- a. For standard weighing procedure, refer to CAMO/MBP Chapter 1.6.
- b. For specific weighing procedure, refer to the AMM reference specified in the table below:

Aircraft Type	AMM Reference
GAM-CAMO AIRCRAFT TYPE CAPABILITIES	
EC120B / H120	AMM EC120B Chapter AMM 08-00-00,6-1 and AMM 08-00-00,6-2 latest revision
AS365 / EC155	AMM EC155 B-B1 Chapter 08-10-00-221 latest revision
<u>A109S / AW109SP</u>	<u>AMM A109S / AW109SP Section 08 latest revision</u>
<u>A119 / AW119 MKII</u>	<u>AMM A119 / AW119 MKII Section 08 latest revision</u>
AW139	AMM AW139 Section 08-20 and 08-30 latest revision
AW189	AMM AW189 Section 08-20 and 08-30 latest revision
A109E	AMM A109E Section 08-20, 08-30 and 08-40 latest revision
R44	AMM R44 Section 1.231 para 10-17 latest revision
R66	AMM R66 Section 8-20, 8-21 and 8-22 latest revision
AS355	AMM AS355 Chapter AMM MET 08-00-00-301, MET 08-00-00-601 and MET 08-00-00-603 latest revision
Bell 429	AMM Bell 429 Section 08 - Weighing latest revision
Beechcraft King Air B300	AMM Super King Air B300/B300C Section 08-20-00 latest revision
Cessna 172	AMM Model 172 Series Section 08-00-00 latest revision
Pilatus PC6	AMM PC-6 Chapter 08-10-00 and 08-20-00 latest revision
Caravan C208	AMM Model 208 Series Section 08-00-00 latest revision
NON GAM-CAMO AIRCRAFT TYPE CAPABILITIES	
AS350 / H125	AMM AS350 / H125 Section 08 latest revision
EC135 / H135	AMM EC135 / H135 Section 08 latest revision
S-76C++	AMM S-76C++ Section 08 latest revision
Twin Otter	AMM Twin Otter Section 08 latest revision
Beechcraft King Air B200	AMM Beechcraft King Air B200 Section 08 latest revision

Aircraft Type	AMM Reference
EC225	AMM EC225 Section 08 latest revision
EC130	AMM EC130 Section 08 latest revision

1.8 ISSUANCE OF MBR AND MCGS REPORT

- a. Upon satisfactory accomplishment of aircraft weighing, the WE shall issue the MBR and MCGS Report accordingly using form (GAM/C-037) in accordance with CAAM/MBP Chapter 2.1 and 3.1 respectively.
- b. The MBR is contained in Section 2 – Mass and Balance Record of Mass and Balance Report (GAM/C-037) latest revision.
- c. The MCGS is contained in Section 1 – Mass and Centre of Gravity Schedule (MCGS) of Mass and Balance Report (GAM/C-037) latest revision.
- d. The MBR and MCGS Report shall have the following reference number GAM/MBR/XX/YY/ZZZ, where:
 - i. XX = Last two digits of the year when the report is issued
 - ii. YY = Running number of the year
 - iii. ZZZ = Aircraft Registration number without 9M (i.e., ABC for 9M-ABC)
- e. WE shall register, update and control all MBR and MCGS Report issued into Mass and Balance Master List form (GAM/C-038) Section B.
- f. The report shall be distributed as follows:
 - i. Original Copy – CAMO
 - ii. Soft copy - CAAM
- g. If applicable AFM pages are used as the MBR and MCGS, the applicable pages shall be submitted to CAAM for approval and incorporation into the AFM as per CAMP Chapter 1.9.
- h. In case where the customer request for updating previous MBR, which was prepared and approved by other organisation, the report shall be revised wholly under GAM CAAM/MBP.
- i. Refer to Figure 3 for Mass and Balance Process Flowchart and Interfaces request internally by GAM CAMO.
- j. Refer to Figure 4 for Mass and Balance Process Flowchart and Interface requested by External CAMO.

MASS AND BALANCE PROCEDURE (MBP)

ISSUE	2
REVISION	1

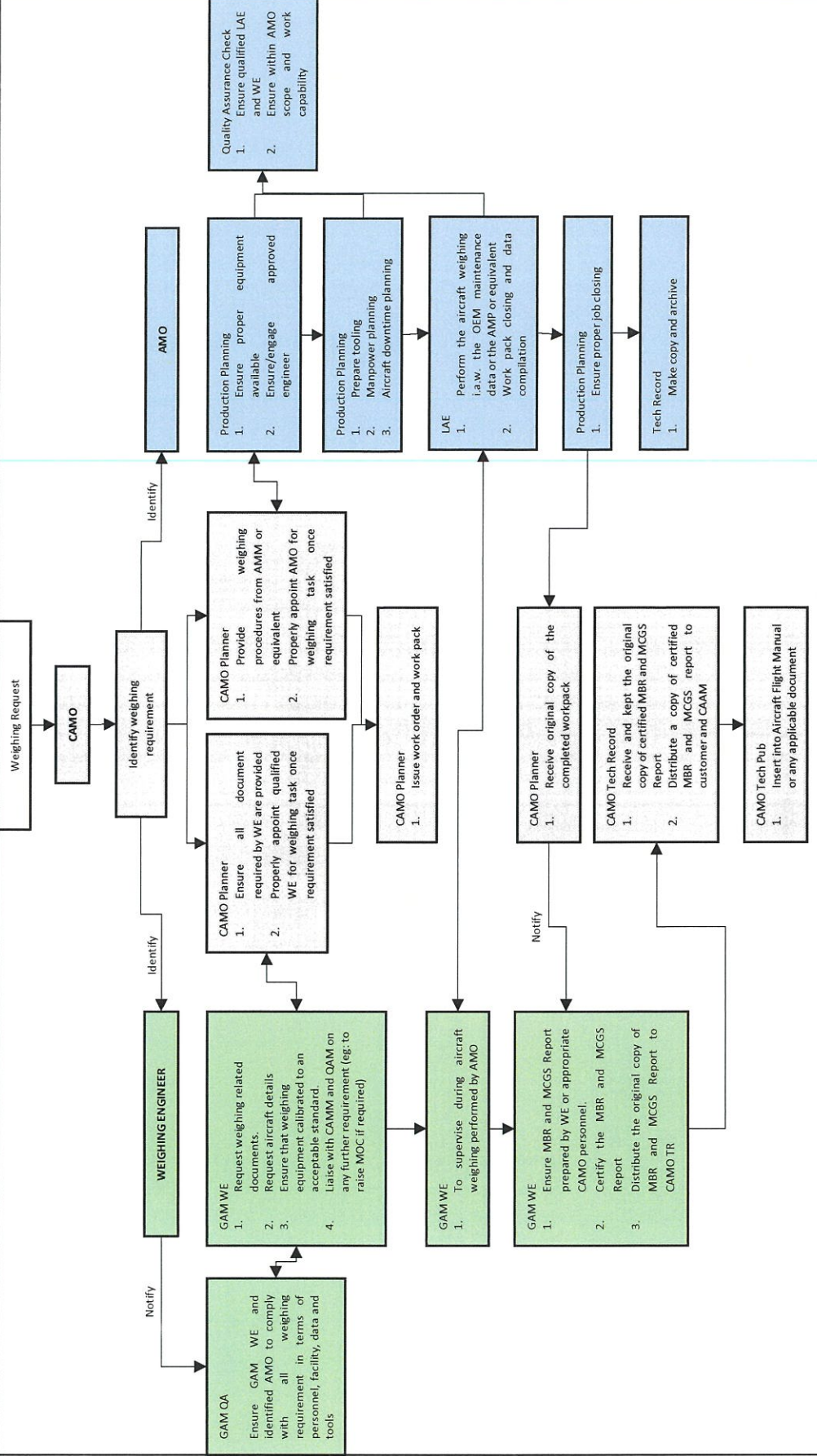


Figure 3 Mass and Balance Process Flowchart and Interface



1.9 MASS AND BALANCE RECORDS RETENTION

- a. Mass and Balance Report (MBR) and Mass and Centre of Gravity Schedule (MCGS) issued by WE shall form part of the respective aircraft continuing airworthiness records.
- b. Upon each issuance of MBR and MCGS, WE shall forward a copy of the MBR and MCGS to Technical Records personnel responsible for the respective aircraft registration.
- c. The MBR and MCGS shall be uploaded into the server and stored in hard disk as a means of backup and kept in a secured location.
- d. Each MBR and MCGS shall be retained in accordance with CAMP Chapter 2.6
- e. These records shall be retained until a period of two (2) years after the aircraft has been permanently withdrawn from service.
- f. When the MBR and MCGS report is reissued/revised, the last issue/revision shall be retained for at least six (6) months.
- g. The access to these records shall be restricted and retained in a damage, alteration and theft protected environment.
- h. For MBR and MCGS issued to aircraft managed by another CAMO, the CAMO will be responsible for the retention of the MBR and MCGS.