



## STANDARD OPERATING PROCEDURE\_OPS007

### Weight & Balance Calculation

Version/Rev	Date	Section	Amendment

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#### PURPOSE

This SOP establishes the standard procedure for weight and balance (W&B) calculation within DHS.

It ensures the preparation and release of accurate and compliant loadsheets, including the management of last-minute changes (LMCs), communication protocols and documentation.

#### OBJECTIVE

The objective of this SOP is to:

- define the process for performing accurate weight and balance calculations;
- ensure correct handling of inputs (passenger, baggage, cargo, fuel, aircraft data);
- establish verification steps prior to loadsheet release;
- regulate the communication of LMCs and other load control information to the PIC;
- ensure compliance with DHS GOM requirements for documentation and retention.

#### APPLICATION

Operations department: Load Controller

#### ABBREVIATIONS & DEFINITIONS

DOW/DOI = Dry Operating Weight / Index

EZFW = Estimated Zero Fuel Weight

LIR = Loading Instruction Report

LMC = Last Minute Change

NOTOC = Notification to Captain (DGSL)

PIC = Pilot-in-Command

ACARS = Aircraft Communication Addressing and Reporting System



## PROCEDURE STEPS

### A. Inputs for W&B Calculation

Step	Action
1.	Final LIR from load supervision.
2.	Final passenger close-out data.
3.	Final fuel figures.
4.	Aircraft limitations (operational and structural) for the registered type.

➤ For details on Load Planning and issuance of LIR/NOTOC, refer to SOP\_OPS006.

### B. Loadsheet Accuracy Check

Step	Action
1.	Before producing or transmitting the final loadsheet, verify: <ul style="list-style-type: none"><li>1. Correct flight number/date.</li><li>2. Correct aircraft registration.</li><li>3. Correct DOW/DOI and configuration data.</li><li>4. Traffic load within limits.</li><li>5. Final fuel figures.</li><li>6. Transit load from LDM.</li><li>7. Passenger close-out data.</li><li>8. ULD tare weights.</li><li>9. Baggage/gate delivery weights.</li><li>10. Actual DGSL loading positions (NOTOC).</li><li>11. Balance calculation within limits (incl. LMCs).</li><li>12. Consistency with final LIR and actual load.</li><li>13. Operator-specific requirements (if applicable).</li><li>14. All documents signed (manual or electronic).</li></ul>

### C. Loadsheet Production & Delivery

Step	Action
1.	Produce loadsheet in accordance with AHM 516–518.
2.	Deliver signed loadsheet to PIC (manual copy/DCS or ACARS).
3.	If changes occur after release → issue new edition or document via LMC process.
4.	Report any discrepancies immediately via agreed channels.
5.	PIC must be informed without delay of any discrepancy after loadsheet issue.

### D. Last Minute Changes

Step	Action
1.	All LMCs must be recorded in the LMC box of the loadsheet or via approved LMC slip.
2.	Communicate LMCs to PIC verbally/writing only after updating loadsheet copies.
3.	If LMCs communicated verbally: record responsible person, time, and PIC acknowledgement.
4.	LMC slip (if used) must state: <ul style="list-style-type: none"><li>• Total LMC weight</li><li>• Total number of LMC passengers</li><li>• Corrected balance conditions (if applicable)</li></ul>



#### E. Information Exchange

- Communication methods: digital, written, or verbal (with readback).
- Records must state: responsible person, time, acknowledgement by receiving party.
- Communication with Load Control must be direct, using agreed protocols.

➤ *For communication of final load data from ramp supervision, refer to SOP\_OPS008.*

#### F. Remote Load Control

- Load planning & W&B may be performed remotely.
- Departure station supervises loading/unloading, communicates discrepancies, and reports final loading.
- Continuous information exchange is mandatory for safe remote operations.

#### G. Documentation & Retention

For each departing flight retain at minimum:

- Final signed LIR
- NOTOC (if applicable)
- Fuel confirmation
- Final loadsheet & trim sheet (incl. LMC), signed by PIC

Retention period: at least 3 months (or as per local regulation).

#### **SAFETY NOTES**

- No loadsheet shall be released unless verified against LIR, passenger close-out, and fuel data.
- LMCs must be processed systematically; verbal communication only with readback and written record.
- Any discrepancy after release must be reported and corrected immediately to prevent unsafe take-off or landing.

#### **REFERENCE**

DHS GOM, Chapter 5.3 – Weight and Balance Calculation

DHS GOM, Chapter 5.3.1 – General

DHS GOM, Chapter 5.3.2 – Last Minute Changes (LMCs)

DHS GOM, Chapter 5.3.3 – Information Exchange

DHS GOM, Chapter 5.8 – Load Control Process Flow