



STANDARD OPERATING PROCEDURE_OPS007

Weight & Balance Calculation

Version/Rev	Date	Section	Amendment

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Issued: 26.08.2025

Version: V1

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. Loadsheets Accuracy Check

Step	Action
1.	Before producing or transmitting the final loadsheet, verify: 1. Correct flight number/date. 2. Correct aircraft registration. 3. Correct DOW/DOI and configuration data. 4. Traffic load within limits. 5. Final fuel figures. 6. Transit load from LDM. 7. Passenger close-out data. 8. ULD tare weights. 9. Baggage/gate delivery weights. 10. Actual DGSL loading positions (NOTOC). 11. Balance calculation within limits (incl. LMCs). 12. Consistency with final LIR and actual load. 13. Operator-specific requirements (if applicable). 14. All documents signed (manual or electronic).

C. Loadsheets 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">• Total LMC weight• Total number of LMC passengers• Corrected balance conditions (if applicable)



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