

# Advisory Circular

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## GUIDANCE ON MASS AND BALANCE FOR ANR-135 OPERATIONS

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### GENERAL

Advisory Circulars (ACs) are issued by the Director-General of Civil Aviation (DGCA) from time to time to provide practical guidance or certainty in respect of the statutory requirements for aviation safety. ACs contain information about standards, practices and procedures acceptable to CAAS. An AC may be used, in accordance with section 3C of the Air Navigation Act (Cap. 6) (ANA), to demonstrate compliance with a statutory requirement. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

### PURPOSE

This AC provides guidance to demonstrate compliance with, and information related to, the requirements relating to mass and balance for operations in accordance with ANR-135.

### APPLICABILITY

This AC is applicable for the AOC holder operating in accordance with ANR-135.

### RELATED REGULATIONS

This AC relates specifically to Division 4 in Part 2 of ANR-135.

### RELATED ADVISORY CIRCULARS

Nil.

### CANCELLATION

This is the first AC issued on the subject.

### EFFECTIVE DATE

This AC is effective from 1 October 2018.

### OTHER REFERENCES

- IATA Airport Handling Manual

**1 GENERAL**

- 1.1 The loading instructions controls the distribution and stowage of baggage, cargo, mail and stores in cargo compartments of the aircraft
- 1.2 The loading instructions should be prepared by the staff responsible for load planning and provided to the staff responsible for loading of the aircraft. Copies of the loading instructions should also be provided to relevant staff of the AOC holder, handling agent and flight crew.
- 1.3 Loading instructions should be retained for a minimum period of 3 months.
- 1.4 The load sheet should not be used as the loading instructions.
- 1.5 The AOC holder may refer to the IATA Airport Handling Manual for further guidance on loading of aircraft.

**2 CONTENTS OF THE LOADING INSTRUCTIONS**

- 2.1 The loading instruction should contain the following information:
  - (a) Information identifying the AOC holder, aircraft and flight it was prepared for. This should include the airport of departure, airport of destination, flight number and date, aircraft registration, and aircraft configuration;
  - (b) A sketch of the aircraft cargo compartments layout with compartment doors indicated;
  - (c) Information and instructions related to the incoming load, transit load, and on load;
  - (d) Special instructions for the loading, handling and stowage of dangerous goods, live animals, heavy cargo, odd-size cargo, etc.;
  - (e) Report of loading completed by the staff responsible for loading to confirm that the aircraft had been loaded in accordance with the given instructions. The actual loading on the aircraft should not deviate from the instructions unless confirmation has been obtained from the staff who prepared the load sheet. The total mass (for baggage, number of pieces may be used in lieu of mass) per position, bay, section and compartment including deviations from the instructions should be stated on the report;
  - (f) Name and signature of the person who prepared the load sheet;
  - (g) The name and signature of the person responsible for loading, confirming that the aircraft has been loaded in accordance with the loading instructions, including the deviations shown on the report and the ULDs and bulk load have been secured in accordance with the operations manual; and

- (h) The sub-total of all compartments/bay/sections, total mass of on-load per compartment/bay/section, total mass of all transit load, re-load and on-load, and maximum allowable mass in each compartment, unless this is provided by on a separate document.

## **GUIDANCE 135REG68      GUIDANCE FOR REGULATION 68 OF ANR-135 – LOADSHEET**

### **1      GENERAL**

- 1.1 The load sheet is a document which states the mass data and the balance condition of a loaded aircraft. It is required for each flight or sector of multi-sector flight, including technical stop and flight diversion.
- 1.2 Personnel of the AOC holder and its handling agents responsible for load planning should be provided with the following information:
  - (a) Aircraft basic mass schedule forms for the applicable aircraft types; and
  - (b) Operational restrictions for each aircraft type.
- 1.3 The AOC holder may refer to the IATA Airport Handling Manual for further guidance on load sheet.

### **2      LOAD SHEET CONTENTS**

- 2.1 The load sheet should contain the following information:
  - (a) Date of the operation;
  - (b) Aircraft registration;
  - (c) Flight number;
  - (d) Edition number if EDP or ACARS loadsheet is used;
  - (e) The airport of departure and destination;
  - (f) Total number of operating crew;
  - (g) Evidence that the centre of gravity is within the specified limits, except where this is recorded by the operator in another document.
  - (h) Actual masses for operations, including zero fuel mass, take-off mass, and landing mass for the operation;
  - (i) Maximum structural or restricted masses, including maximum/restricted zero fuel mass, maximum/restricted take-off mass, and maximum/restricted landing mass;
  - (j) Masses of take-off fuel and trip fuel;
  - (k) Difference between the allowed traffic load mass and actual traffic load mass;
  - (l) The total number of seats, per class, occupied by passenger; and
  - (m) The total number of passengers on board the aircraft.