Australian Government

Civil Aviation Safety Authority

Civil Aviation Order 100.28 Instrument 2007

as amended

made under regulation 33B of the *Civil Aviation Regulations 1988*.

This compilation was prepared on 23 September 2013 taking into account amendments up to *Civil Aviation Order 100.28 Amendment Instrument 2013 (No. 1)*.

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Contents

1 Name of instrument

This instrument is the *Civil Aviation Order 100.28 Instrument 2007*.

2 Commencement

This instrument commences on the day after it is registered.

3 New Civil Aviation Order 100.28

Civil Aviation Order 100.28 is repealed and a new Civil Aviation Order 100.28 substituted as set out in Schedule 1.

Schedule 1 Civil Aviation Order 100.28

Aircraft weight control authority

This Civil Aviation Order is to be read in conjunction with Civil Aviation Order 100.23.

1 Requirements for issue

1.1 An applicant for an authority issued under this Civil Aviation Order must submit satisfactory evidence that:

(a) he or she has been adequately trained for the purpose; and

(b) he or she has had adequate recent practical experience of the duties to be performed in relation to the authority; and

(c) he or she has passed such examinations in relation to the authority as are required or approved for the purpose.

1.2 An applicant for the issue of an authority is taken to meet the requirements of subparagraph 1.1 (a) if the applicant:

(a) has completed a tertiary qualification in a relevant engineering discipline; and

(b) is eligible for Graduate Membership of Engineers Australia in the Professional Engineer occupational category.

2 Application for authority

2.1 Application for the issue or extension of an aircraft weight control authority must be made to CASA on Form 377.

3 Examination

3.1 An applicant will be examined in accordance with the syllabus specified in Appendix I of this Order.

3.2 A candidate must achieve a minimum mark of 75% to pass the examination, except that where a candidate fails to satisfactorily answer particular questions specified in the question paper, the candidate will be failed irrespective of the total marks achieved.

Note Examination results will be notified direct to the candidate by CASA.

4 Re-examination

4.1 An applicant who fails an examination may be permitted to attempt the written examination again. The Director reserves the right to determine a minimum period prior to the applicant's further examination and, where considered necessary, require evidence that the applicant has received additional training of a nature acceptable to the Director.

5 Issue of authority

5.1 An aircraft weight control authority will be issued to an applicant who has complied with the requirements of this Order.

5.2 The Director may issue an authority endorsed with such limitations as he considers necessary.

6 Period of validity

6.1 An aircraft weight control authority is valid for a period of 2 years.

7 Renewal of authority

7.1 Application for the renewal of an aircraft weight control authority must be made on Form 359, and an authority issued without further examination, provided the holder produces acceptable evidence that he or she has maintained proficiency and familiarity with the methods of aircraft weight control applicable to the authority held.

Appendix I

Syllabus for aircraft weight control authority

1 General

1.1 Documents — Relevant Civil Aviation Orders; Aircraft Weighing Summary; Flight Manuals; Load Data Sheets; Loading Systems; Certificates of Airworthiness; Aircraft Manufacturer's data relative to weight control and preparation of aircraft for weighing; Record of Alterations.

1.2 Weight Control Officer — responsibilities and privileges — preparation and approval of loading data — procedure for amendment of flight manual loading information.

1.3 Terms — datum; empty weight, operating weight, maximum take-off weight, ramp weight, maximum landing weight, zero fuel weight; specific gravity; loading system; fixed equipment, removable equipment; centre of gravity, centre of gravity limits; mean aerodynamic chord; unusable fuel and oil.

1.4 Principles and purpose of weight control; periodic reweighing of aircraft.

1.5 The Principle of Moments — arm; moment; moment index; constant.

1.6 Conversion Factors — Imperial to SI units, for length and mass; Imperial and USA to SI units, for liquid volume.

2 Equipment and control

2.1 Plumb-bobs and levels — uses and serviceability checks.

2.2 Scales — types; accuracy, repeatability and calibration requirements; precautions during transport and operation.

2.3 Preparation of aircraft — jacking and slinging, fuel tank draining procedure and fire precautions; equipment lists.

2.4 Consecutive and independent weighing requirements; permissible discrepancies between weighings, factors that affect accuracy of weighing.

3 Weight and balance calculations

3.1 Basic principles of calculations involving plus and minus quantities.

3.2 Empty weight — method of determination; typical deductions and additions; standard weights for engine fuel, oil, passengers and crew.

3.3 Moment index — calculations for weights fore and aft of datum.

3.4 Empty weight c.g. — method of determination; conversion of c.g. position expressed in distance from datum, to a percentage of M.A.C. and vice versa.

3.5 Compilation of Aircraft Weighing Summary and Load Data Sheet.

4 Weight and balance extreme conditions

4.1 Determination of weight and balance extreme conditions.

4.2 Loading System — cockpit and compartment placards; loading graphs and tables for disposable load; allowable weight — moment, or weight-centre of gravity graphs and tables; floor plans.

4.3 Uses of fixed and disposable ballast.

5 Weight control in service

5.1 Record of Alterations form — purpose; compilation.

5.2 Reweighing requirements.

Notes to Civil Aviation Order 100.28 Instrument 2007

Note 1

The Civil Aviation Order 100.28 Instrument 2007 (in force under the *Civil Aviation Regulations 1988*) as shown in this compilation comprises *Civil Aviation Order 100.28 Instrument 2007* amended as indicated in the Tables below.

Table of Orders

Year and number	Date of notification in *Gazette*/ registration on FRLI	Date of commencement	Application, saving or transitional provisions
CAO 100.28 Instrument 2007	17 December 2007 (*see* F2007L04661)	18 December 2007 (*see* s. 2)	
CAO 100.28 2013 No. 1	FRLI 19 September 2013 (*see* F2013L01711)	20 September 2013 (*see* s. 2)	

Table of Amendments

ad. = added or inserted am. = amended rep. = repealed rs.= repealed and substituted

Provision affected	How affected
subs. 1.....	am. CAO 100.28 2013 (No. 1)
subs. 2.....	am. CAO 100.28 2013 (No. 1)
subs. 3.....	am. CAO 100.28 2013 (No. 1)