



WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990

I, JENNIFER MARY SHIPLEY, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *17th* day of *February* 1997

by **JENNIFER MARY SHIPLEY**

J. Shipley
Minister of Transport

**Civil Aviation Rules
Part 137 Amendment 2**

Docket Nr. 1111

**Civil Aviation Rules
Part 137 Amendment 2**

RULE OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT

The objective of Part 137 Amendment 2 is to bring into force changes that result from the coming into force of Part 26.

In May 1990 the Air Transport Division of the Ministry of Transport published a notice of intention to carry out a complete review of the aviation regulatory system. This notice, in Civil Aviation Information Circular Air 3, listed the areas in which rules would be made and invited interested parties to register their wish to be part of the consultative process. The Register was identified as the Regulatory Review Consultative Group.

A draft of Part 26 including Part 137 Amendment 2 was developed by the rules rewrite team in consultation with members of the consultative group. An informal draft was published and distributed on 18 December 1995 and a period of informal consultation followed. This culminated in the issue of Notice of Proposed Rulemaking 96-11 under Docket 1111 on 17 July 1996.

The publication of this notice was advertised in the daily newspapers in the five main provincial centres on 17 July 1996. The notice was mailed to members of the Regulatory Review Consultative Group and to other parties, including overseas aviation authorities and organisations, who were considered likely to have an interest in the proposal.

A period of 30 days was allowed for comment on the proposed rule. Eleven written submissions were received in response to this notice. There were no significant disagreements with the rule and the majority of the changes requested by the commenters were included. Five of the submissions received discussed the subsequent amendments to Parts 91, 121, 135, and 137. Only minor changes were requested by the commenters and the majority of these changes were included.

The submissions and verbal comments were considered and where appropriate the proposed rules amended to take account of the comments made. The details of the consultation process are contained in Part 26, under which this amendment was introduced.

The rules as amended were then referred to and signed by the Minister of Transport.

Part 137 Amendment 2 comes into force on 1 April 1997.

Part 137 — Amendments

Subpart A — General

137.7 Aircraft Equipment

137.7 is amended by substituting it with the following:

“137.7 [Reserved]”

Part 137 is amended by inserting before Appendix A the following:

“Subpart F — Instruments and Equipment

137.251 Applicability

This Subpart prescribes the instruments and equipment required, in addition to Part 91, for aircraft to be used in operations performed under this Part.

137.253 General

Each holder of an agricultural aircraft operator certificate shall ensure that a flight does not commence unless—

- (1) the aircraft is equipped with the type and number of instruments and equipment required by Part 91 and this Subpart; and
- (2) the instruments and equipment installed in the aircraft comply with the specifications and airworthiness design standards listed in—
 - (i) Appendix D to this Part; or
 - (ii) Appendix C to Part 21; or
 - (iii) Part 26; or
 - (iv) alternative specifications or standards approved by the Director; and
- (3) the instruments and equipment have been installed in accordance with the aircraft manufacturer’s instructions or other instructions acceptable to the Director; and
- (4) except as may be provided by a MEL approved under 91.539 for use for that aircraft, the instruments and equipment installed in the aircraft are in operable condition.

137.255 Seating and restraints

Each holder of an agricultural aircraft operator certificate shall ensure that each aircraft is equipped with a shoulder harness for each crew seat.

137.257 Additional instruments

Each holder of an agricultural aircraft operator certificate shall ensure that each aircraft is equipped with a slip indicator.

137.259 Additional equipment

Each holder of an agricultural aircraft operator certificate shall ensure that each aircraft is equipped with—

- (1) hoppers or spray tanks as applicable; and
- (2) means of indicating to the pilot the hopper upper level contents; and
- (3) jettison gear for aeroplanes fitted with internal dispensing equipment; and
- (4) placarding including—
 - (i) hopper or spray tank maximum loadings; and
 - (ii) passenger locations; and
 - (iii) flight limitations; and
 - (iv) jettison times for aeroplanes equipped with jettison gear.”

Part 137 is amended by inserting after Appendix C the following:

“Appendix D — Instruments and Equipment Airworthiness Design Standards

Instruments and equipment required by Subpart F shall meet the following specifications and requirements:

D.1 Seating and restraints

Seats and safety harnesses shall be designed using an ultimate forward and resulting inertia force of 12g.

D.2 Hopper permitted maximum load

The permitted maximum hopper load shall be the maximum takeoff weight less the sum of—

- (1) the typical aircraft empty weight; and

- (2) 77 kg for each crew member; and
- (3) the weight of fuel for one hour flying at 75 percent maximum continuous power; and
- (4) the difference in weight between the maximum engine oil quantity and the oil quantity included in the aircraft empty weight.

D.3 Hoppers and spray tanks

(a) A hopper or spray tank situated in such a position that it could injure an occupant if it came loose in a minor crash landing, and its support structure, shall be designed using an ultimate forward and resulting inertia force of 12g.

(b) A hopper or spray tank situated in front of the crew, and its support structure, shall be designed using ultimate inertia forces of—

- (1) 1.5g rearwards; and
- (2) 1.0g sideways.

(c) For the purposes of paragraph (a) and (b), the hopper or spray tank shall be assumed to be filled to the maximum load specified in the flight manual limitations.

D.4 Hopper upper level contents

Hoppers shall be provided with a means for the pilot to detect the upper contents levels—

- (1) by indication or observation; and
- (2) for all loads in excess of half the maximum hopper load specified in the flight manual limitations, allowing for the likely range of agricultural material densities to be carried.

D.5 Jettison gear

(a) Jettison gear shall be—

- (1) capable of discharging not less than 80 percent of the aeroplane's maximum load of agricultural material within five seconds of the pilot initiating the jettison action; and
- (2) simple to operate; and
- (3) designed so that once the control is selected by the pilot the load will fully discharge without requiring the pilot to continue holding the control.

(b) The jettison capability shall be demonstrated by a flight test using the permitted maximum hopper load not exceeding the maximum hopper load specified in the flight manual limitations.

D.6 Markings and placards

D.6.1 General

(a) Markings and placards shall be displayed in a conspicuous place that may not be easily erased, disfigured, obscured, or removed.

(b) Units used on markings and placards shall be the same as those on the related instrument or in the related flight manual.

D.6.2 Hopper or spray tank maximum loadings

A placard stating the maximum hopper or spray tank load shall—

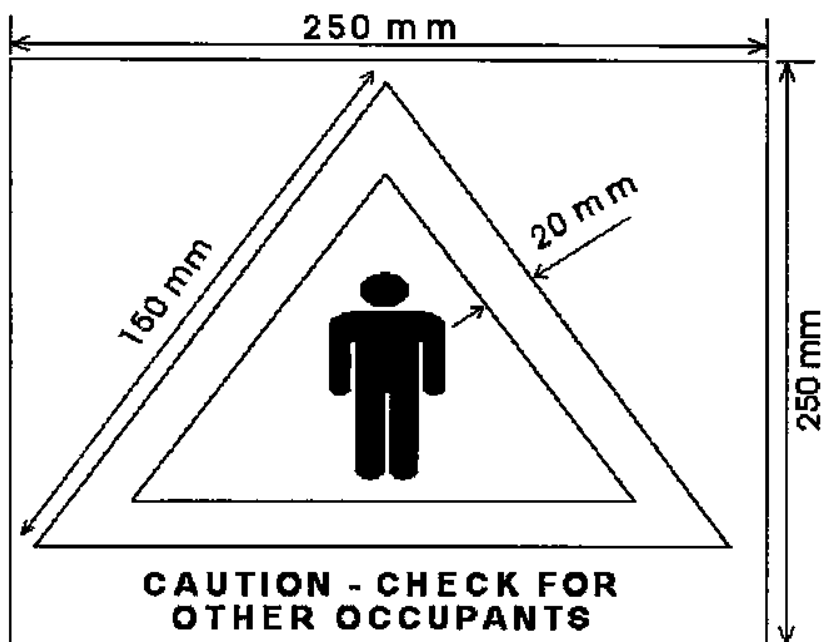
- (1) be located—
 - (i) adjacent to the hopper or tank filler; and
 - (ii) in full view of the normal loading positions; and
- (2) state a maximum load not exceeding the permitted maximum hopper load.

D.6.3 Jettison times for aeroplanes equipped with jettison gear

A placard shall be displayed in the cockpit indicating the representative dump times for the type of material to be dispensed.

D.6.4 Passenger locations

For each passenger position not readily visible from the outside of an aircraft, the exterior shall be marked on both sides of the fuselage adjacent to the passenger position with the following diagram:



A black figure within a red triangle on a white background

D.6.5 Flight limitations

A placard shall be displayed in the cockpit with the following wording:

CAUTION

This is an agricultural aircraft. All aerobatic manoeuvres, including spins, prohibited. Avoid severe flight manoeuvres. Do not exceed maximum authorised weight. Disregard of the notice will greatly reduce fatigue life and may result in structural failure.

