



PURSUANT to Sections 28, 29 and 30 of the Civil Aviation Act 1990

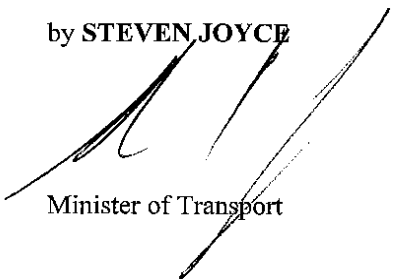
I, STEVEN JOYCE, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *11th* day of *October* 2011

by **STEVEN JOYCE**


Minister of Transport

Civil Aviation Rules

Part 91, Amendment 22

General Operating and Flight Rules

Docket 5/CAR/1

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Rule objective

The objective of amendment 22 to Part 91 is to update the general operating and flight rules as a consequence to the introduction of the new Part 115 adventure aviation rules.

Extent of consultation

The Director was approached by interested parties in the early 1990's requesting that a rule be developed to allow the carriage of passengers for hire or reward in aircraft engaged in activities that could best be described as 'adventure aviation'. The basic concepts were discussed in 1994 at an industry meeting that was attended by CAA. The concepts included types of aircraft eligible, and passengers flying at their own risk.

In 1996 McGregor & Company and Aviation Consultancy Services Pty Ltd presented a report to the Civil Aviation Authority on adventure aviation. The report concluded that the adventure aviation sector should be either regulated or stopped. As a result, CAA agreed to proceed with the selection of a Civil Aviation Rules Advisory Group (CIRAG) for the development of Rule Part 115 Adventure Aviation.

Part 115 was originally put to the industry as an NPRM in 1999. This NPRM attracted a number of comments, and prompted a review of CAA's policy which limited proposed "extreme" activities. The Part 115 Project was suspended in June 2002 due to other CAA priorities.

In 2003, the industry and CIRAG requested that the CAA undertake another review to determine the need for Part 115. The request was based on a concern that operational standards for adventure aviation operators were below the standards required for Part 135 certificate holders.

In July 2006, the Director agreed to introduce a new Part 115 rule development project with updated regulatory objectives that reflect the contemporary environment. Prior to the publication of notice of proposed rulemaking (NPRM) 10-02, the rule development project for Part 115 was undertaken in consultation with a project working group (PWG) that consisted of representatives from each of the adventure aviation industry sectors (i.e. hot air ballooning; hang gliding;

paragliding; gliding; parachuting; special category aircraft – warbirds; and microlight aircraft operations).

NPRM 10-02, containing the proposed amendment to Part 91 was issued for public consultation under Docket 5/CAR/1 on 23 September 2010.

The publication of the NPRM was notified in the Gazette (No. 124) on 23 September 2010. The NPRM was published on the CAA web site and mailed to identified stakeholders.

A period of 42 working days to 19 November 2010 was allowed for comment on the proposed rule.

Summary of submissions

A total of 33 written submissions were received on the NPRM. There was one change made to Part 91 as a result of a submission, and one change that was made for administrative purposes in order to incorporate an imminent change from the Part 137 final rule project:

- Rule 91.112(c) – Amend to include a reference to rule 137.503.
- Appendix A.25(4) and (5) – Amend to include references to emergency parachute standards.

Examination of submissions

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Authority between 8:30 am and 4:30 pm on weekdays, except statutory holidays.

Insertion of Amendments

The amendments to the rules are reflected by the revocation of 6 existing rules and 1 appendix paragraph and the insertion of 6 new rules and 1 new appendix paragraph in their place.

Effective date of rule

Amendment 22 to Part 91 comes into force on 10 November 2011.

Availability of rules

Civil Aviation Rules are available from–

CAA web site: <http://www.caa.govt.nz/>

Freephone: 0800 GET RULES (0800 438 785)

Part 91 General Operating and Flight Rules

Subpart B — Operating Rules

Rule 91.105 is revoked and replaced by the following rule:

91.105 Special category airworthiness certificates – operating limitations

(a) Except as provided in paragraph (b), a person must not operate an aircraft that has a *special category* airworthiness certificate for the carriage of a person or goods for hire or reward.

(b) Paragraph (a) does not apply to a person operating an aircraft that has a *special category* airworthiness certificate if the carriage of a person is for hire or reward and—

(1) the person being carried is the holder of a flight instructor rating issued by the Director under the Act and Part 61 and—

(i) subject to paragraphs (e), (f)(2)(i), (g)(1), and (j)(2)(i) as appropriate, is giving flight instruction in the aircraft; or

(ii) is giving conversion instruction for an aircraft type rating on the aircraft; or

(2) the person being carried is required to perform a function essential to the operation of the aircraft under paragraph (e); or

(3) the aircraft has a *special category – primary*, *special category – LSA*, or *special category – limited* airworthiness certificate and is operated under the authority of an adventure aviation operator certificate that has been issued by the Director under the Act and Part 115.

(c) Except if taking off or landing, a person must not operate an aircraft that has a *special category* airworthiness certificate over a congested area of a city or town unless the aircraft has been authorised to do so by the Director in writing.

(d) A person operating an aircraft that has a *special category* airworthiness certificate must inform each person carried in the aircraft of the warning specified in the placard that is required by rule 21.205 to be installed in the aircraft.

(e) Except as provided in paragraph (k), a person must not operate an aircraft that has a *special category*—***experimental*** airworthiness certificate for any purpose other than—

- (1) researching and developing new aircraft design concepts, new aircraft equipment, new aircraft installations, new aircraft operating techniques, or new uses for aircraft; or
- (2) showing that the aircraft complies with applicable airworthiness rules; or
- (3) performing a flight evaluation; or
- (4) giving conversion instruction for an aircraft type rating on the aircraft.

(f) A person operating an aircraft that has a *special category*—***exhibition*** airworthiness certificate—

- (1) must operate the aircraft in accordance with the operator statement required by rule 47.55(c) to accompany the certificate of registration for the aircraft; and
- (2) must not operate the aircraft for any of the following purposes:
 - (i) giving flight instruction to a person for the issue of a pilot licence or rating, except for conversion instruction for an aircraft type rating on the aircraft, unless approved by the Director:
 - (ii) performing an agricultural aircraft operation:
 - (iii) performing a helicopter external load operation under Part 133 unless the performance of an external load operation is approved by the Director for participation in an aviation event:

- (iv) the carriage of a person other than a person who is permitted to be carried in accordance with the operator statement required by rule 47.55(c) to accompany the certificate of registration for the aircraft, or who is carried under paragraph (2)(i).

(g) A person must not operate an aircraft that has a *special category—amateur-built* airworthiness certificate for any of the following purposes:

- (1) giving flight instruction to a person for the issue of a pilot licence or rating, except for conversion instruction for an aircraft type rating on the aircraft, if the person is not the amateur constructor or owner of the aircraft;
- (2) performing an agricultural aircraft operation;
- (3) performing a helicopter external load operation under Part 133.

(h) A person must not operate an aircraft that has a *special category—primary* airworthiness certificate for any of the following purposes:

- (1) performing an agricultural aircraft operation;
- (2) performing a helicopter external load operation under Part 133.

(i) A person must not operate an aircraft that has a *special category—LSA* airworthiness certificate to perform an agricultural aircraft operation.

(j) A person operating an aircraft that has a *special category—limited* airworthiness certificate—

- (1) must operate the aircraft in accordance with the operator statement required by rule 47.55(c) to accompany the certificate of registration for the aircraft; and
- (2) must not operate the aircraft for any of the following purposes:

- (i) giving flight instruction to a person for the issue of a pilot licence or rating, except for conversion instruction for an aircraft type rating on the aircraft, unless approved by the Director:
- (ii) performing an agricultural aircraft operation:
- (iii) performing a helicopter external load operation under Part 133:
- (iv) the carriage of more than the following number of persons:
 - (A) 10 persons for an aeroplane:
 - (B) 5 persons for a helicopter.

Rule 91.112 is revoked and replaced by the following rule:

91.112 Daily flight records

(a) Except as provided in paragraph (c), an operator of an aircraft must keep accurate daily flight records that contain for each flight the following—

- (1) the name of the operator:
- (2) the name of the pilot-in-command:
- (3) the names of other crew members:
- (4) the registration markings of the aircraft:
- (5) the date of the flight:
- (6) the purpose of the flight:
- (7) the time of commencement of the flight:
- (8) the name of the departure aerodrome:
- (9) the flight time.

(b) An operator must retain each daily flight record for a period of 12 months after the date of the flight.

(c) A person required to keep daily flight records under rules 115.455, 135.857 or 137.503, is not required to comply with paragraphs (a) and (b).

Subpart C — General Flight Rules

Rule 91.227 is revoked and replaced by the following rule:

91.227 Operating near other aircraft

A pilot must not operate an aircraft—

- (1) so close to another aircraft as to create a collision hazard; or
- (2) in formation flight except by prior arrangement with the pilot-in-command of each aircraft in the formation; or
- (3) in formation flight while carrying passengers for hire or reward unless the requirements of paragraph (2) are met and the pilot is performing—
 - (i) a parachute-drop aircraft operation; or
 - (ii) an adventure aviation formation flight operation under the authority of an adventure aviation operator certificate issued by the Director under the Act and Part 115.

Subpart G — Operator Maintenance Requirements

Rule 91.603 is revoked and replaced by the following rule:

91.603 General maintenance requirements

- (a) The operator of an aircraft must ensure that—
- (1) the aircraft is maintained in an airworthy condition; and
 - (2) every applicable airworthiness directive is complied with in accordance with the requirements prescribed in Part 39; and

- (3) the aircraft is inspected under this Subpart; and
 - (4) except for instruments and equipment that are permitted to be inoperative under rule 91.537, every defect is rectified before flight; and
 - (5) any inoperative instrument or item of equipment that is permitted to be inoperative under rule 91.537, is repaired, replaced, removed, or inspected at the next inspection required by the maintenance programme under which the aircraft is maintained; and
 - (6) maintenance on the aircraft is performed in accordance with the requirements prescribed in this Subpart, Part 43, and any other applicable rule; and
 - (7) the aircraft is certified for release-to-service under Part 43 after the performance of any maintenance on the aircraft; and
 - (8) every system that is required under Subpart F for indicating the presence of carbon monoxide in the cabin of the aircraft is serviceable and within any applicable life limit for the system.
- (b) The operator of an aircraft must ensure compliance with the airworthiness limitations mandated by the airworthiness authority of the State of Design in the instructions for continued airworthiness issued for the aircraft.
- (c) Except as provided in paragraphs (d) to (f), the operator of an aircraft must ensure compliance with—
- (1) the manufacturer's recommended overhaul intervals; and
 - (2) for an aircraft that has a *special category—exhibition* airworthiness certificate or a *special category—limited* airworthiness certificate, the replacement of lifed components as specified in the maintenance programme for the aircraft.

(d) Products and components may be operated beyond the manufacturer's recommended TBO if the operator complies with TBO escalation procedures that are detailed in a maintenance programme that is approved under Part 115, Part 119 or approved under rule 91.607.

(e) Despite paragraph (d), a piston engine fitted to an aircraft that is not used for hire or reward operations may be operated beyond the manufacturer's recommended TBO if the piston engine is maintained in accordance with an engine TBO escalation programme that is acceptable to the Director.

(f) Despite paragraph (d), a propeller fitted to an aircraft that is not used for air operations may be operated beyond the manufacturer's recommended calendar TBO if the propeller is inspected in accordance with methods acceptable to the Director at 5 yearly intervals, except that propellers must be overhauled at the manufacturer's recommended operating hours TBO.

Rule 91.605 is revoked and replaced by the following rule:

91.605 Maintenance programmes and schedules

(a) Subject to paragraphs (b), (c), and (d), the operator of an aircraft must maintain the aircraft under—

- (1) a maintenance programme approved under Part 115; or
- (2) a maintenance programme approved under Part 119; or
- (3) a maintenance programme approved under rule 91.607; or
- (4) the manufacturer's maintenance schedule; or
- (5) if the aircraft is powered by a piston engine and has a MCTOW of 2730 kg or less, a maintenance programme that is acceptable to the Director and includes at least the following:
 - (i) details of the responsibilities and standards for maintenance of the aircraft in accordance with the applicable rule requirements:

- (ii) details of pre-flight checks:
 - (iii) details of scheduled maintenance checks and inspections.
- (b) The operator of an aircraft that is—
 - (1) used for air operations under the authority of an air operator certificate issued by the Director under the Act and Part 119 must maintain the aircraft under the maintenance programme that is required by Part 119 for the issue of the air operator certificate; or
 - (2) used for adventure aviation operations under the authority of an adventure aviation operator certificate issued by the Director under the Act and Part 115 must maintain the aircraft under the maintenance programme that is required by Part 115 for the issue of the adventure aviation operator certificate; or
 - (3) issued with a *special category* airworthiness certificate must maintain the aircraft under a valid maintenance programme approved under rule 91.607 for the holder of the certificate of registration for the aircraft.
- (c) If the manufacturer's maintenance schedule referred to in paragraph (a)(3) does not provide for an aircraft that operates for less than 100 hours of time in service per year, the operator must ensure that the manufacturer's 100-hour inspection or an equivalent inspection is completed within the preceding 12 months.
- (d) If the Director determines that a manufacturer's maintenance schedule referred to in paragraph (a)(3) is deficient, the Director may require the operator to submit a maintenance programme for approval under rule 91.607.
- (e) Except as provided in paragraph (f) and rule 91.611, the operator of an aircraft must not operate the aircraft unless—
 - (1) every aircraft radio station that is required to be installed in the aircraft under Subpart F for operations under IFR has

- been tested and inspected under Part 43, Appendix B within the preceding 24 months; and
- (2) every static pressure system, altimeter instrument, or automatic pressure altitude reporting system that is required to be installed in the aircraft under Subpart F, or required for an SSR transponder installed in the aircraft, has been tested and inspected under Part 43, Appendix D—
- (i) within the preceding 24 months; and
- (ii) following any opening and closing of the static pressure system, except for the use of system drain and alternate static pressure valves, or where self-sealing disconnect coupling is provided; and
- (iii) following installation of, or maintenance on, the automatic pressure altitude reporting system where data correspondence error could be introduced; and
- (3) every SSR transponder that is required to be installed in the aircraft under Subpart F has been tested and inspected, under Part 43, Appendix E within the preceding 24 months; and
- (4) every ELT that is required to be installed in the aircraft under Subpart F—
- (i) has been tested and inspected under—
- (A) Appendix F of Part 43 within the previous 12 months or 100 hours of aircraft time in service, whichever is the sooner, or
- (B) for an aircraft maintained under a maintenance programme required by rule 119.63, the scheduled intervals, which must not be more than 12 months, as described in the approved maintenance programme; and
- (ii) has been tested in accordance with the manufacturer's instructions within the previous 24 months; and

- (iii) has the battery replaced in accordance with the manufacturer's instructions, when the life of the battery, as established by the manufacturer, has expired; and
- (5) every compass that is required to be installed in the aircraft under Subpart F has been calibrated—
 - (i) within the preceding 24 months; and
 - (ii) following any out of phase event that may affect the calibration of the compass unless the aircraft manufacturer specifies otherwise; and
- (6) every first aid kit that is required to be installed in the aircraft under Subpart F has been inspected—
 - (i) within the preceding 12 months to ensure that appropriate quantities of items are included and time-expired items are replaced; and
 - (ii) after every reported use to ensure that appropriate quantities of items are included; and
- (7) every portable fire extinguisher that is required to be installed in the aircraft under Subpart F has been inspected for condition and tested in accordance with the manufacturer's instructions or other equivalent instructions acceptable to the Director within the preceding 12 months; and
- (8) all flotation equipment that is required to be installed in the aircraft under Subpart F has been inspected for condition and tested in accordance with the manufacturer's instructions or other equivalent instructions acceptable to the Director within the preceding 12 months; and
- (9) the aircraft's empty weight and centre of gravity is re-established if—

- (i) changes have been made to the aircraft that could affect the empty weight and centre of gravity; or
 - (ii) the operator has any reason to suspect that the information in the aircraft's flight manual is no longer accurate; and
- (10) for a powered aircraft with a maximum certificated seating capacity of 4 or more seats, the aircraft has been weighed within the preceding 10 years.
- (f) The operator of an aircraft that is maintained under a maintenance programme referred to in paragraphs (a)(1) or (a)(2) is not required to comply with any particular requirement in paragraph (e) if the maintenance programme for the aircraft includes a test, inspection, or other action that is equivalent to the particular requirement in paragraph (e).
- (g) The operator of an aircraft must—
 - (1) identify in the maintenance logbook for the aircraft which maintenance option under paragraph (a) is to be used for the aircraft; and
 - (2) if the maintenance programme is one that is approved under Part 119 or approved under rule 91.607, identify in the maintenance programme the person who is responsible for scheduling the maintenance that is required in the programme; and
 - (3) if changing from the maintenance programme or option identified under paragraph (1) to another programme or option under paragraph (a), schedule the inspections required by the new programme or schedule, to provide for the continued airworthy condition of the aircraft; and
 - (4) provide a copy of the applicable maintenance programme or schedule to the person who performs maintenance on the aircraft, and upon request to the Director.

(h) The tests and inspections required by paragraphs (e)(1), (e)(2)(i), (e)(3), and the 12 month test and inspection requirement in paragraph (e)(4)(i)(A) do not need to be performed if—

- (1) the aircraft has been inspected for the grant of an airworthiness certificate under section 9 of the Act and Part 21 within the preceding 12 months; and
- (2) the applicable equipment was installed in the aircraft when the inspection specified in paragraph (1) was performed.

Subpart H — Special Flight Operations

Rule 91.705 is revoked and replaced by the following rule:

91.705 Parachute-drop operations

(a) A pilot-in-command of an aircraft performing a parachute-drop operation must hold a parachute-drop rating issued by the Director under the Act and Part 61.

(b) An operator of an aircraft performing a parachute-drop operation must ensure that—

- (1) the aircraft used to perform the operation has a valid standard category airworthiness certificate; and
- (2) the configuration of the aircraft is appropriate for the parachute-drop operation; and
- (3) the aircraft has adequate interior room and satisfactory egress for each parachutist to be carried; and
- (4) the aircraft cabin has no handles or fittings which could cause the inadvertent opening of a parachute in the aircraft or during egress by any parachutist; and
- (5) suitable points on the aircraft are used for the attachment of static lines; and
- (6) the aircraft flight manual authorises flight with a door removed, or open, in flight; and

(c) A pilot-in-command of an aircraft performing a parachute-drop operation must ensure that—

- (1) each person carried in the aircraft, other than a person intending to make a parachute descent, —
 - (i) occupies a seat and fastens his or her safety belt during take-off and landing; and
 - (ii) wears an emergency or reserve parachute assembly; and
 - (iii) is trained in the use of the emergency or reserve parachute assembly; and
 - (iv) is briefed on the general procedures to be followed in an aircraft emergency including the method to be used for exiting the aircraft; and
- (2) each person carried in the aircraft who intends to make a parachute descent —
 - (i) is not in a position in the aircraft that could hazard the safety of the operation or the aircraft occupants through inadvertent interference with the controls; and
 - (ii) is briefed on the general procedures to be followed in an aircraft emergency including the method to be used for exiting the aircraft.

(d) A pilot-in-command of an aircraft performing a parachute-drop operation must not permit a person to make a parachute descent from the aircraft, unless—

- (1) the person or persons making the descent have provided the pilot with the details of the proposed descent prior to take-off; and
- (2) the pilot is satisfied that each person's descent is—
 - (i) authorised by a parachute organisation; or

- (ii) authorised by a holder of an adventure aviation operator certificate issued by the director under the Act and Part 115 if the certificate authorises tandem parachute operations; or
- (iii) approved by the Director.

Appendix A — Instrument and equipment specifications

Appendix A.25 is revoked and replaced by the following appendix:

A.25 Parachute assembly for emergency use

A parachute assembly for emergency use must meet the requirements of—

- (1) an applicable type certificate; or
- (2) TSO C23; or
- (3) a military drawing and order number or any other military designation or specification number; or
- (4) LTF 35/03; or
- (5) European Norm EN 12491.

Consultation Details

A Notice of Proposed Rulemaking, NPRM 10-02 *Part 115 Adventure Aviation – Certification and Operations*, was issued for public consultation under Docket 5/CAR/1 on 23 September 2010.

A total of 33 responses to the NPRM were received - 9 submissions were from individuals, and 24 from organisations.

Details regarding the list of submitters and a summary of the public submissions can be found in the consultation details of the final rule document for the initial issue of Part 115.