



PURSUANT to Section 28 of the Civil Aviation Act 1990

I, HARRY JAMES DUYNHOVEN, Minister for Transport Safety,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *16th* day of *May* 2006

by **HARRY JAMES DUYNHOVEN**

Minister for Transport Safety

A handwritten signature in black ink, appearing to read 'Harry James Duynhoven', written over a horizontal line.

Civil Aviation Rules

Part 91, Amendment 14

General Operating and Flight Rules

Docket 3/CAR/4

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Rule objective

The objective of Amendment 14 to Part 91 is to make editorial and minor technical changes as part of a general rule fix up project.

Extent of consultation

A Notice of Proposed Rulemaking, NPRM 05-07, containing the proposed changes to Part 91 was issued for public consultation under Docket 3/CAR/4 on 23 June 2005.

The publication of this NPRM was notified in the *Gazette* on 23 June 2005 and advertised in the daily newspapers in the five main provincial centres on 25 June 2005. The NPRM was published on the CAA web site and mailed to identified stakeholders including representative organisations who were considered likely to have an interest in the proposal.

A period of 37 days was allowed for comment on the proposed rule.

New Zealand Transport Strategy

The development of the NPRM and the proposed rule changes takes into account the objectives of the New Zealand Transport Strategy (NZTS) and the provisions of the Civil Aviation Amendment Act (No 2) 2004.

Summary of submissions

Nine written submissions were received on the NPRM. One submission was received on the proposed amendments to Part 91 from a CAA Flight Operations inspector.

The rule as proposed was then referred to Parliament's Regulations Review Committee before being signed by the Minister for Transport Safety.

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 in this Part are reflected by the revocation of the existing rule and the substitution of the new rule.

Effective date of rule

Amendment 14 to Part 91 comes into force on 22 June 2006.

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 C – General Flight Rules

Rule 91.213 is revoked and the following new rule is substituted:

91.213 Carry-on baggage

(a) A person operating an aircraft, other than a balloon, must ensure that, before take-off or landing, all passenger baggage aboard the aircraft is stowed away—

- (1) in a baggage locker; or
- (2) under a passenger seat in such a way that it cannot—
 - (i) slide forward under crash impact; or
 - (ii) hinder evacuation of the aircraft in the event of an emergency.

Rule 91.221 is revoked and the following new rule is substituted:

91.221 Flying equipment and operating information

(a) A pilot-in-command of an aircraft must ensure that the following equipment and information, in current and appropriate form, is accessible to every flight crew member of the aircraft:

- (1) an accurate means of indicating the time:
- (2) appropriate aeronautical charts:
- (3) for IFR operations, every appropriate navigational en route, terminal area, approach, and instrument approach and departure chart:
- (4) for night operations, an operable electric torch for every flight crew member.

(b) In addition to paragraph (a), a pilot-in-command of an aircraft in excess of 5700 kg MCTOW, or having a certificated seating capacity of 10 passenger seats or more, must ensure that every flight crew member

uses a cockpit checklist covering the normal and emergency procedures for the operation of the aircraft in accordance with the aircraft flight manual.

Rule 91.233 is revoked and the following new rule is substituted:

91.233 Aircraft lights

- (a) A pilot of an aircraft must not—
- (1) operate an aircraft at night unless it has lighted position lights; or
 - (2) moor or move an aircraft at night on a water aerodrome unless the aircraft complies with the lighting requirement of the International Regulations for Preventing Collisions at Sea; or
 - (3) operate an aircraft at night that is required by Subpart F to be equipped with an anti-collision light system unless the anti-collision light system is operating.
- (b) A person must not park or move an aircraft at night on a manoeuvring area of an aerodrome that is in use for aircraft operations unless the aircraft—
- (1) is clearly illuminated; or
 - (2) has lighted position lights; or
 - (3) is in an area that is marked by obstruction lights.
- (c) Notwithstanding paragraph (a)(3), a pilot of an aircraft is not required to operate the anti-collision light system if the pilot determines that, because of operating conditions, it is in the best interest of safety to turn the system off.

Rule 91.247 is revoked and the following new rule is substituted:

91.247 Use of SSR transponder and altitude reporting equipment

(a) Except as provided in paragraph (e), a pilot-in-command of an aircraft operating in transponder-mandatory airspace designated under Part 71 must, unless otherwise authorised or instructed by ATC—

- (1) operate the transponder—
 - (i) in Mode A and Mode C; or
 - (ii) in Mode S if the aircraft is equipped with Mode S equipment and allocated a unique Mode S code referred to in paragraph (b); and
- (2) except if paragraph (3) applies or if operating Mode S equipment, set the transponder SSR code—
 - (i) to the code assigned by ATC for the flight; or
 - (ii) if not assigned a code by ATC, in accordance with Table 2; and
- (3) in the event of an in-flight emergency, loss of radio communications, or an act of unlawful interference, set the transponder to the appropriate code in accordance with Table 3.

(b) A person must not operate an aircraft with Mode S transponder equipment installed unless the State of registry has assigned the aircraft a unique Mode S address code.

(c) A pilot-in-command of an aircraft intending to operate the aircraft without an operable transponder in transponder mandatory airspace that is within controlled airspace must obtain specific authorisation from the ATC unit having jurisdiction over the relevant airspace as part of the ATC clearance to enter that airspace.

(d) A pilot-in-command of an aircraft operating in transponder mandatory airspace must immediately advise the ATC unit having

jurisdiction over the relevant airspace of any failure or partial failure of the transponder equipment.

(e) Unless otherwise required by ATC, only 1 of the aircraft in a formation flight is required to operate a transponder in accordance with paragraph (a).

Table 2. Airspace SSR Codes

Flight rules	Type of aircraft	SSR Code
VFR	For aircraft involved in fire fighting and reconnaissance duties	0111
IFR	All	2000
VFR	All - in Auckland Oceanic FIR only.	2000
VFR	All - when operating in the aerodrome traffic circuit at controlled aerodromes	2200
VFR	Aeroplanes other than Defence aeroplanes	1200
VFR	Gliders or balloons	1300
VFR	Powered aircraft in designated general aviation areas	1400
VFR	Helicopters other than Defence helicopters	1500
VFR	Defence aeroplanes	6000
VFR	Defence helicopters	6500

Table 3. Emergency SSR Codes

Occurrence	SSR Code
Unlawful interference	7500
Loss of radio communication	7600
In flight emergency when no code has been allocated by ATC	7700

Rule 91.249 is revoked and the following new rule is substituted:

91.249 Aircraft callsigns

(a) If required to communicate by radiotelephony under the Civil Aviation Rules, a pilot-in-command of a New Zealand registered aircraft must use 1 of the following radiotelephony callsigns—

- (1) the telephony designator of the aircraft operating agency as approved by the Director, followed by the flight identification; or
- (2) the telephony designator of the aircraft operating agency as approved by the Director followed by the last 3 letters of the aircraft registration marking; or
- (3) the name of the aircraft manufacturer, or the aircraft model, and the last 3 letters of the aircraft registration marking.

(b) Notwithstanding paragraph (a)(2), the pilot-in-command may, after establishing two-way communication with an appropriate ATS unit, use an abbreviated callsign consisting of the last 3 letters of the aircraft registration marking.

(c) The Director may only approve the callsigns prescribed in paragraphs (a)(1) and (2) for the use of—

- (1) the holder of an air operator certificate issued under Part 119 or Part 129 conducting—
 - (i) a regular air transport service; or

- (ii) a search and rescue flight; or
 - (iii) a medical transfer or medical emergency flight; and
- (2) aircraft being flown on a police operation that is authorised by the Commissioner of Police.
- (d) An applicant for the approval of a telephony designator must submit to the Director in writing the name of the aircraft operating agency and a payment of the appropriate application fee prescribed by regulations made under the Act.

Subpart D — Visual Flight Rules

Rule 91.301 is revoked and the following new rule is substituted:

91.301 VFR meteorological minima

- (a) Except as provided in rule 91.303, and paragraphs (b) and (c), a pilot-in-command must not operate an aircraft under VFR—
- (1) when the flight visibility is less than that prescribed for the corresponding class of airspace in Table 4; or
 - (2) at a distance from clouds that is less than that prescribed for the corresponding class of airspace in Table 4.
- (b) Except as provided in rule 91.303, a pilot-in-command must not take-off or land an aircraft, or fly in the vicinity of an aerodrome, under VFR when the flight visibility, or the cloud ceiling, is less than—
- (1) at aerodromes within a control zone, that prescribed in Table 5; and
 - (2) at aerodromes in uncontrolled airspace, that prescribed in Table 6.
- (c) A pilot-in-command of—
- (1) a helicopter may operate in Class G airspace with a flight visibility of less than 5 km if manoeuvred at a speed that

gives adequate opportunity to observe other traffic or any obstructions in order to avoid collisions; and

- (2) an aircraft performing agricultural aircraft operations, may operate in Class G airspace with a flight visibility of less than 5 km but not less than 1500 m; and
- (3) an aircraft performing flight instruction may operate within a designated low flying zone prescribed under Part 71 with a flight visibility of less than 5 km but not less than 1500 m.

Table 4. Airspace VFR meteorological minima

Class of airspace		Distance from cloud	Flight visibility
B		Clear of cloud	8 km at or above 10 000 feet AMSL 5 km below 10 000 feet AMSL
C, D, and E		2 km horizontally 1000 feet vertically outside a control zone 500 feet vertically within a control zone	
F and G	Above 3000 feet AMSL or 1000 feet above terrain whichever is the higher	2 km horizontally 1000 feet vertically	
	At or below 3000 feet AMSL or 1000 feet above the terrain whichever is the higher	Clear of cloud and in sight of the surface	5 km

Table 5. VFR minima at aerodromes within a control zone.

		Ceiling	Flight visibility
All aircraft	Day and Night	1500 feet	5 km

Table 6. VFR minima at aerodromes in uncontrolled airspace.

		Ceiling	Flight visibility
All aircraft	Day	600 feet	1500 m
All aircraft	Night	1500 feet	8 km

Subpart F — Instrument and Equipment Requirements

Rule 91.511 is revoked and the following new rule is substituted:

91.511 Night VFR instruments and equipment

(a) A powered aircraft with an airworthiness certificate operated under VFR by night must be equipped in accordance with rule 91.509 and have—

- (1) except as provided in paragraph (b), a means of indicating rate of turn and slip; and
- (2) position lights; and
- (3) an anti-collision light system; and
- (4) illumination for each required instrument or indicator.

(b) An aircraft equipped with a third attitude instrument indicator that is usable through 360° of pitch and roll does not need to be equipped with a means of indicating rate of turn.

Subpart H — Special Flight Operations

Rule 91.701 is revoked and the following new rule is substituted:

91.701 Aerobatic flight

(a) Except as provided in paragraph (e), a pilot-in-command must not operate an aircraft in aerobatic flight—

- (1) over an area that is within a horizontal distance of 600 metres of a congested area of a city, town, or settlement; or
- (2) over an area that is within a horizontal distance of 600 metres of an open air assembly of persons; or
- (3) within any controlled airspace except with the authorisation of ATC.

(b) Except as provided in paragraphs (c) and (f), a pilot-in-command must not operate an aircraft in aerobatic flight below a height of 3000 feet above the surface.

(c) A pilot-in-command may operate an aircraft in aerobatic flight below a height of 3000 feet above the surface—

- (1) but not less than 1500 feet above the surface if the pilot holds an aerobatic rating issued in accordance with Part 61; and
- (2) below a height of 1500 feet above the surface if the pilot—
 - (i) holds an aerobatic rating issued in accordance with Part 61 ; and
 - (ii) does not perform aerobatic flight below the height authorised in their aerobatic rating; and
 - (iii) is participating in an aviation event.

(d) A pilot-command must not operate an aircraft in aerobatic flight carrying a passenger unless—

- (1) the pilot holds an aerobatic rating issued in accordance with Part 61; and

- (2) the flight is conducted at a height not less than 3000 feet above the surface.
- (e) A pilot-in-command may operate an aircraft in aerobatic flight over an area that is within a horizontal distance of 600 metres of spectators at an aviation event if the pilot is participating in that aviation event in accordance with rule 91.703.
- (f) A pilot of a glider may operate a glider in aerobatic flight below a height of 3000 feet above the surface without holding an aerobatic rating issued in accordance with Part 61 if—
 - (1) the aerobatic flight is for the purpose of spin training; and
 - (2) the flight is conducted at a height not less than 1000 feet above the surface.

Appendix A — Instrument and equipment specifications

Appendix A.6 is revoked and the following new appendix is substituted:

A.6 Aircraft lights

- (a) An aircraft anti-collision light system must comprise—
 - (1) a red rotating beacon; or
 - (2) an aviation red or aviation white capacitor discharge light that meets the requirements of—
 - (i) TSO C96; or
 - (ii) the minimum standards of the applicable aircraft design; or
 - (iii) another standard acceptable to the Director.
- (b) For an aircraft that was first issued with a type certificate before 11 August 1971, the anti-collision light system must meet the

requirements of FAR Part 23, 25, 27, or 29 as applicable, except that the colour may be either aviation red or aviation white.

- (c) Aircraft position lights must—
 - (1) meet the requirements of TSO C30; and
 - (2) consist of—
 - (i) an unobstructed steady red light projected above and below the horizontal plane through an angle from dead ahead to 110 degrees left; and
 - (ii) an unobstructed steady green light projected above and below the horizontal plane through an angle from dead ahead to 110 degrees right; and
 - (iii) an unobstructed steady white light projected above and below the horizontal plane rearward through an angle of 140 degrees equally distributed on the left and right sides.

Appendix A.11 is revoked and the following new appendix is substituted:

A.11 Category II and III equipment

- (a) ILS localiser and glide slope equipment must meet the requirements of Radio Technical Commission for Aeronautics (RTCA) document number DO-195 for ILS localiser equipment and DO-192 for ILS glide slope equipment.
- (b) A flight control guidance system must meet the performance requirements of an evaluation programme.
- (c) A radio altimeter must—
 - (1) display to the flight crew the wheel height of the main landing gear above the terrain to an accuracy of plus or minus 5 feet or 5%, whichever is greater, when the—

- (i) pitch angle is plus or minus 5 degrees about the mean approach attitude; and
 - (ii) roll angle is 20 degrees in either direction; and
 - (iii) forward velocity is between the minimum approach speed and 200 knots; and
 - (iv) sink rate is not greater than 15 feet per second at altitudes from 100 feet to 200 feet; and
 - (v) over level ground track actual altitude without significant lag or oscillation; and
- (2) when the aircraft is below 200 feet altitude and a change in terrain representing 10% of the aircraft's altitude occurs,—
- (i) not unlock; and
 - (ii) have its display respond within 0.1 seconds; and
 - (iii) if the radar altimeter unlocks, re-acquire the signal in less than 1 second; and
- (3) if using a push to test feature, test the entire system at a simulated altitude of less than 500 feet; and
- (4) incorporate a positive failure warning any time there is a power loss or absence of ground return signals within the desired range of operating altitudes.
- (d) Other required instruments and equipment must be capable of performing the necessary Category II or III operations as listed in the operator's precision approach procedure manual required by rule 91.417.

Appendix A.26 is revoked and the following new appendix is substituted:

A.26 Glider tow lines

A Glider tow line must—

- (1) except as provided in paragraph (2), have a breaking strength of not less than 80% or more than 200% of the MCTOW of the glider to be towed; and
- (2) if the tow line used has a breaking strength of more than 200% of the MCTOW of the glider to be towed, have a safety link installed at the point of attachment to—
 - (i) the glider with a breaking strength of not less than 80% of the glider's MCTOW but not more than twice the glider's MCTOW; and
 - (ii) the aircraft with a breaking strength of at least 100% of the glider's MCTOW but not more than twice the glider's MCTOW.

Consultation Details

(This statement does not form part of the rules contained in Part 91. It provides details of the consultation undertaken in making the rules.)

Comments arising from the NPRM

The rule amendment was developed under docket 3/CAR/4 and published as NPRM 05-07. The consultation details relating to docket 3/CAR/4 are detailed in each affected rule.

Nine written submissions were received on the NPRM and one commented on the proposed amendments to Part 91.

91.511 (b). A CAA Flight Operations inspector believes that the current rule is incorrect and that the rule should be amended to state that if an attitude indicator is fitted then a turn and slip indicator is not required. The submitter noted that as the rule is currently written an aircraft can go from having one turn and slip indicator to three attitude indicators.

***CAA comment:** The CAA agrees and this is an issue to be addressed under Omnibus Project 5/CAR/3 presently under development.*

The comments and all background material used in developing these rules are held on the docket. The docket is available for public inspection at Aviation House, 10 Hutt Road. Persons wishing to view the docket should contact the Docket Clerk on Phone 64-4-560-9603 and ask for docket 3/CAR/4.