



**PURSUANT** to sections 28, 29 and 30 of the Civil Aviation Act 1990, and after having had regard to the criteria specified in section 33(2) of that Act

**I, CRAIG FOSS**, Associate Minister of Transport,

**HEREBY MAKE** the following ordinary rules.

**SIGNED AT** Wellington

This 8<sup>th</sup> day of April 2015

by **Hon CRAIG FOSS**

A handwritten signature in black ink, appearing to read 'Craig Foss', is written over the printed name.

Associate Minister of Transport

**Civil Aviation Rules**

**Part 101, Amendment 6**

**Gyrogliders and Parasails; & Unmanned Balloons,  
Kites, Rockets and Model Aircraft Operating Rules**

*Docket 15/CAR/1*

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## **Rule objective**

The objective of amendment 6 to Part 101 is to address the immediate safety risks associated with the use of Unmanned Aircraft Systems, and take steps to achieve compliance with international standards and recommended practices with regard to unmanned aircraft.

## **Extent of consultation**

A Notice of Proposed Rulemaking, NPRM 14-01, containing the proposed Part 101 was issued for public consultation under Docket 15/CAR/1 on 4 December 2014.

The publication of this NPRM was notified in the Gazette on 4 December 2014 and advertised in the daily newspapers in Auckland, Hamilton, Wellington, Christchurch and Dunedin on 5 December 2014. The NPRM was published on the CAA web site and a notice of publication was sent to 2364 identified stakeholders including representative organisations who were considered likely to have an interest in the proposal.

A period of 57 days was allowed for comment on the proposed rule.

## **Summary of submissions**

86 written submissions were received on the NPRM.

A full CAA response to the themes that emerged during the submissions process and a table documenting all of the changes made to the final rule during the NPRM and consultation period is available on the CAA's website.

## **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.

## **Amendments**

This rule amends Part 101 by—

- replacing the title of this Part to reflect the new definition of ‘unmanned aircraft’ which includes unmanned balloons and aircraft that were previously defined as ‘model aircraft’;
- amending Subpart A; and
- replacing Subpart E.

## **Effective date of rule**

Amendment 6 to Part 101 comes into force on 1 August 2015.

## **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 101 Gyrogliders and Parasails; and Unmanned Balloons, Kites, Rockets, and Model Aircraft – Operating Rules Amendment 6**

### **1 Title Replaced**

Replace the title of this Part with:

“Part 101 Gyrogliders and Parasails, Unmanned Aircraft (including Balloons), Kites, and Rockets – Operating Rules.”

### **2 Amendments to Subpart A -- General**

#### **2.1 Rule 101.1 Applicability**

Replace rule 101.1 with:

##### **“101.1 Applicability**

(a) Subject to rule 102.21, this part prescribes rules governing the operation of—

- (1) moored balloons and kites;
- (2) free balloons;
- (3) rockets;
- (4) remotely piloted aircraft, control line model aircraft, and free flight model aircraft;
- (5) gyrogliders and parasails.”

#### **2.2 Rule 101.3 Definitions**

2.2(1) In rule 101.3, insert in the appropriate alphabetical place:

**“Remotely piloted aircraft** means an unmanned aircraft that is piloted from a remote station and—

- (1) includes a radio controlled model aircraft, but
- (2) does not include a control line model aircraft or a free flight model aircraft.”

2.2(2) In rule 101.3, the definition of ‘Aerodrome’, delete “Volume 4”.

2.2(3) In rule 101.3, replace the definition of ‘Controlled aerodrome’, with:

“**Controlled aerodrome** means an aerodrome at which air traffic control service is being provided to aerodrome traffic.”

2.2(4) In rule 101.3, delete the following definitions:

‘model aircraft’;

‘Radio controlled model aircraft’;

2.2(5) In rule 101.3, replace the definition of ‘Shielded operation’ with:

“**Shielded operation** means an operation of an aircraft within 100 m of, and below the top of, a natural or man-made object.”

### **2.3 Rule 101.5 Registration**

Replace rule 101.5 with:

#### **“101.5 Registration**

- (1) The requirements in Part 47 do not apply to unmanned aircraft, kites, rockets, parasails, and gyrogliders.”

### **2.4 Rule 101.7 Restricted, military operating, and danger areas**

Replace rule 101.7 with:

#### **“101.7 Restricted, military operating, and danger areas**

(a) A person must not operate an unmanned aircraft, kite, rocket, gyroglider, or parasail within a restricted area designated under Part 71 unless the person has approval to do so from the administering authority responsible for the restricted area.

(b) A person must not operate an unmanned aircraft, kite, rocket, gyroglider, or parasail within a military operating area designated under

Part 71 unless the person has approval to do so from the administering authority responsible for the military operating area.

(c) A person must not operate a gyroglider or parasail within a danger area designated under Part 71 unless the person has established that the activity associated with the danger area will not affect the safety of the gyroglider or parasail.”

## **2.5 Rule 101.9 Low flying zones**

Replace rule 101.9 with:

### **“101.9 Low flying zones**

A person must not operate any of the following within a low flying zone designated under Part 71:

- (1) an unmanned aircraft:
- (2) a kite:
- (3) a rocket:
- (4) a gyroglider:
- (5) a parasail.”

## **2.6 Rule 101.11 Controlled airspace**

Replace rule 101.11 with:

### **“101.11 Controlled airspace**

A person must not operate any of the following in controlled airspace without prior authorisation from the ATC unit responsible for that airspace unless the operation is a shielded operation:

- (1) an unmanned aircraft:
- (2) a kite:
- (3) a rocket:
- (4) a gyroglider:

- (5) a parasail.”

**2.7 New rule inserted**

After rule 101.11, insert:

**“101.12 Airspace knowledge**

- (a) This rule applies to a person who operates any of the following:
- (1) an unmanned aircraft:
  - (2) a kite:
  - (3) a rocket:
  - (4) a gyroglider:
  - (5) a parasail.
- (b) A person to whom this rule applies must—
- (1) ensure that before each flight, the person is aware of the airspace designation under Part 71 and any applicable airspace restrictions in place in the area of intended operation; or
  - (2) conduct the operation under the direct supervision of a person who is aware of the airspace designation under Part 71 and any applicable airspace restrictions in place in the area of intended operation.”

**2.8 Rule 101.13 Hazardous operations**

Replace rule 101.13 with:

**“101.13 Hazard and risk minimisation**

A person operating any of the following must take all practicable steps to minimize hazards to persons, property and other aircraft:

- (1) an unmanned aircraft:
- (2) a kite:



- (3) a rocket:
- (4) a gyroglider:
- (5) a parasail.”

## **2.9 Rule 101.15 Dropping of articles**

Replace rule 101.15 with:

### ***“101.15 Dropping of articles***

A person operating any of the following must not allow any object to be dropped in flight if such action creates a hazard to other persons or property:

- (1) an unmanned aircraft:
- (2) a kite:
- (3) rocket:
- (4) a gyroglider:
- (5) a parasail.”

## **3 Subpart E -- Model Aircraft Replaced**

Replace Subpart E with:

### **Subpart E - Remotely Piloted Aircraft, Control Line Model Aircraft and Free Flight Model Aircraft**

#### ***101.201 Applicability***

Subject to rule 102.21, this Subpart applies to—

- (1) remotely piloted aircraft; and
- (2) control line model aircraft; and
- (3) free flight model aircraft.

***101.202 Approved person or organisation***

In this Subpart, an approved person or organisation means a person or organisation having appropriate expertise in the design, construction or operation of remotely piloted aircraft, or appropriate knowledge of airspace designations and restrictions, and who has been approved by the Director to perform one or more of the following specified functions:

- (1) issuing a pilot qualification for operating remotely piloted aircraft; or
- (2) appointing persons to give instruction to operators of remotely piloted aircraft; or
- (3) authorising a person to notify the aeronautical information service provider, for the issue of a NOTAM, of remotely piloted aircraft operations; or
- (4) authorising the construction or modification of remotely piloted aircraft greater than 15kg; or
- (5) inspecting and approving the construction of a remotely piloted aircraft greater than 15kg; or
- (6) authorising the operation of a remotely piloted aircraft greater than 15kg.

***101.203 Control line model aircraft***

A person must not operate a control line model aircraft with a single or multiple wire system longer than 30 m.

***101.205 Aerodromes***

(a) A person must not operate a remotely piloted aircraft or a free flight model aircraft on or within 4 km of—

- (1) an uncontrolled aerodrome, unless—

- (i) the operation is undertaken in accordance with an agreement with the aerodrome operator; and
  - (ii) in the case of a free flight model aircraft, the aircraft is launched downwind of an active runway; and
  - (iii) in the case of a remotely piloted aircraft –
    - (A) each pilot has an observer in attendance while the aircraft is in flight; and
    - (B) the aircraft is not operated at a height of more than 400 feet above ground level unless the operator has been approved by the Director to operate the aircraft above 400 feet above ground level; and
- (2) a controlled aerodrome, unless it is operated in accordance with an authorisation from the relevant ATC unit; and
- (3) any aerodrome, unless—
- (i) the person—
    - (A) is the holder of, or is under the direct supervision of the holder of, a pilot qualification issued by an approved person or organisation; or
    - (B) is under the direct supervision of a person appointed to give instruction in the operation of remotely piloted aircraft by an approved person or organisation; or
    - (C) is the holder of a pilot licence or certificate issued under Part 61 or Part 149.
- (b) A person must not operate a remotely piloted aircraft, a control line model aircraft or a free flight model aircraft—
- (1) on or over any active movement area of an aerodrome; or
  - (2) on or over any active runway strip area.

(c) Paragraph (a) does not apply to a shielded operation that is conducted—

- (i) outside of the boundary of the aerodrome; and
- (ii) in airspace that is physically separated from the aerodrome by a barrier that is capable of arresting the flight of the aircraft.

(d) Paragraph (a)(3) does not apply to a free flight model aircraft.

### ***101.207 Airspace***

(a) A person operating a remotely piloted aircraft must—

(1) Unless operating in a danger area under Part 71, avoid operating –

- (i) in airspace above persons who have not given consent for the aircraft to operate in that airspace; and
- (ii) above property unless prior consent has been obtained from any persons occupying that property or the property owner; and

(2) maintain observation of the surrounding airspace in which the aircraft is operating for other aircraft; and

(3) not operate the aircraft at any height above 400 feet above ground level except in accordance with paragraph (c).

(b) Nothing in paragraph (a) requires a person to obtain consent from any person if operating—

- (1) under the authority of an approved organisation; and
- (2) in airspace used by that organisation before 1 August 2015.

(c) A person operating a remotely piloted aircraft more than 4 km from an aerodrome boundary and above 400 feet above ground level must—

- (1) operate in a danger area designated for that purpose under Part 71; or
- (2) ensure that the operation remains clear of Class C, D, and E airspace and that, at least 24 hours before the operation, a person authorised by an approved person or organisation, notifies the aeronautical information service provider, for the issue of a NOTAM, of the following information:
  - (i) the name, address, and telephone number of the operator:
  - (ii) the location of the proposed operation:
  - (iii) the date, time and duration of the proposed operation:
  - (iv) the maximum height above ground level proposed for the aircraft operation.

***101.209 Visual line of sight operation***

- (a) This rule applies to the following types of aircraft:
  - (1) a remotely piloted aircraft:
  - (2) a free flight model aircraft.
- (b) A person must not operate an aircraft to which this rule applies in—
  - (1) any area in which the person's view of the surrounding airspace in which the aircraft will operate is obstructed; or
  - (2) meteorological conditions that obstruct the person's ability to maintain visual line of sight of the aircraft.
- (c) A person who operates an aircraft to which this rule applies must at all times—
  - (1) maintain visual line of sight with the aircraft; and
  - (2) be able to see the surrounding airspace in which the aircraft is operating; and

- (3) operate the aircraft below the cloud base.
- (d) For the purposes of this rule visual line of sight means a straight line along which an observer has a clear view and which may be achieved with the use of—
  - (1) spectacles, contact lenses, or a similar device used to correct subnormal vision of the user to no better than normal vision but not the use of an electronic, mechanical, electromagnetic, optical, or electro-optical instrument; or
  - (2) a first person view system and a trained and competent observer who maintains—
    - (3) visual line of sight of the aircraft; and
    - (4) sight of the surrounding airspace in which the aircraft is operating; and
    - (5) direct communication with the person who is operating the aircraft.

#### ***101.211 Night operations***

A person must not operate a remotely piloted aircraft or free flight model aircraft at night unless the operation is—

- (1) indoors; or
- (2) a shielded operation.

#### ***101.213 Right of way***

(a) A person who is operating a remotely piloted aircraft or a control line model aircraft must ensure the aircraft that the person is operating gives way to, and remains clear of, all manned aircraft on the ground and in flight.

(b) A person who is operating a free flight model aircraft must before launching the aircraft ensure that during the operation the aircraft will remain clear of all manned aircraft on the ground and in flight.

***101.215 Aircraft mass limits***

- (a) A person must not operate a remotely piloted aircraft, a control line model aircraft or a free flight model aircraft with a gross mass of more than 25 kg.
- (b) A person must not operate a remotely piloted aircraft with a gross mass of between 15 kg and 25 kg unless the aircraft, and any modification made to it, is—
- (1) constructed under the authority of, or inspected and approved by, an approved person or organisation defined in rule 101.202; and
  - (2) operated under the authority of an approved person or organisation defined in rule 101.202.