



# Australian Government

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## Civil Aviation Safety Authority

Instrument number CASA EX171/15

I, JONATHAN ALECK, Acting Director of Aviation Safety, on behalf of CASA, make this instrument under regulation 11.160 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.

**[Signed Jonathan Aleck]**

Jonathan Aleck  
Acting Director of Aviation Safety

1 October 2015

### Exemption – operation of UAV near people – Keepsake Productions Pty Ltd trading as Proairvision and Eagle-Eye Aerials

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#### 1 Duration

- (1) This instrument commences on 4 October 2015.
- (2) Subject to subsection (3), the provisions of this instrument expire at the end of the day on 4 October 2015, as if they had been revoked by another instrument.
- (3) Sections 1 (Duration), 3 (Application) and 5 (Conditions) and clause 3 of Schedule 3 expire 2 years after the date mentioned in subsection (2), as if they had been revoked by another instrument.

*Note* Under section 1, the exemption and most conditions expire at the end of the day on 4 October 2015, while the condition on record keeping does not expire until 2 years later.

#### 2 Definitions

- (1) In this instrument:
  - AGL* means above ground level.
  - Chief Controller* means Bill Jan Blair, Aviation Reference Number (*ARN*) 826457.
  - operator's personnel* means a person employed or engaged by the operator to assist in the operation of the UAV.
  - UAV Controller* means the Chief Controller, Tristan Piers Worsdall (*ARN* 828304) or a person authorised by the Chief Controller to operate the UAV in accordance with clauses 1 and 2 of Schedule 3.
- (2) In this instrument, the distance from the UAV is measured from a point on the ground vertically below the UAV.

#### 3 Application

- (1) This instrument applies to the operation of a remotely piloted multi-rotor unmanned aerial vehicle (the *UAV*) by Keepsake Productions Pty Ltd, trading

- as Proairvision and Eagle-Eye Aerials, ARN 828131 (the *operator*), when used for aerial photography at the Melbourne Cricket Ground on 4 October 2015.
- (2) CASA EX91/15 does not apply to operation of the UAV under this instrument.

#### **4 Exemption**

The operator is exempt from compliance with regulation 101.245 of CASR 1998 when operating the UAV.

#### **5 Conditions**

- (1) The exemption is subject to the conditions mentioned in Schedules 1, 2 and 3.
- (2) To avoid doubt, in relation to the operation of the UAV under this instrument, the operator must comply with the conditions mentioned in Schedules 1, 2 and 3 and not the conditions mentioned in CASA EX91/15.

### **Schedule 1 Conditions of exemption – operation of UAV near people**

- 1 The wind speed, including gusts, at a height of 2 metres AGL at the location of the operation must not exceed 5 knots.
- 2 The operator must establish exclusion zones appropriate for the safe operation of the UAV and ensure adequate measures have been taken to prevent members of the public encroaching on the exclusion zones at all times.
- 3 The operator must ensure that the UAV Controller is positioned so that the UAV Controller is either:
  - (a) directly behind the UAV and can observe the entire forward flight path; or
  - (b) close enough to the subject of the photography to ensure adequate depth perception.
- 4 Before operating the UAV within 30 metres of a person who is not one of the operator's personnel, the operator must ensure that the person:
  - (a) is briefed in accordance with the operator's operations manual; and
  - (b) is informed of the responses required in an emergency; and
  - (c) after he or she has been briefed and informed as mentioned in paragraphs (a) and (b), has provided consent to the operator operating the UAV between 15 and 30 metres of the person.
- 5 Subject to clause 6 of this Schedule and clause 2 of Schedule 2, the operator must not operate the UAV within 15 metres of a person who is not one of the operator's personnel.
- 6 If:
  - (a) the UAV is in transit during its launch or recovery phase; and
  - (b) the UAV is not higher than 2 metres AGL; and
  - (c) a person, who is not one of the operator's personnel, after he or she has been briefed and informed as mentioned in clause 4, has provided consent to the operator operating the UAV between 5 and 15 metres of the person;the operator may operate the UAV within 15 metres, but not within 5 metres, of the person.
- 7 The UAV must be a multi-rotor UAV operated by the operator and fitted with all of the following equipment:
  - (a) a GPS hold and return to home function and equipment for the reception of at least 7 GPS satellites;

- (b) a dual parallel redundant battery system with duplicated battery mountings.
- 8 The UAV must have demonstrated the ability to fly safely with 1 motor inoperative at the maximum take-off weight for the operation.

**Schedule 2      Conditions of exemption – operation of UAV near people  
(additional conditions)**

- 1 The UAV must:
  - (a) be flown within a 30 metre radius of position 37 49' 11.93"S 144 59' 00.41"E; and
  - (b) not be flown above 50 feet AGL.
- 2 The operator may operate the UAV between 5 and 15 metres of a person who is not one of the operator's personnel if the following conditions are met:
  - (a) the UAV must be tethered using a material of a strength and type appropriate for the kinetic energy of the UAV; and
  - (b) the person must not occupy a position downwind of the UAV; and
  - (c) the person must wear protective gloves, eyewear, headwear and footwear; and
  - (d) the maximum speed of the UAV must not exceed walking pace (about 3 to 4 knots); and
  - (e) the UAV must not be flown directly towards the person and must approach the person at a tangent to ensure a 5 metre separation is maintained; and
  - (f) the person has been:
    - (i) briefed and informed as mentioned in paragraphs 4 (a) and (b) of Schedule 1; and
    - (ii) briefed on possible operational issues that may arise; and
    - (iii) informed of the likely consequence of being struck by aircraft; and
    - (iv) briefed on the method that the UAV Controller will take to warn the person of a loss of control of the UAV; and
    - (v) informed of the actions that the person is required to take in the event of loss of control of the UAV; and
  - (g) the person has provided consent, in writing, to the operator to operate the UAV between 5 and 15 metres of the person.
- 3 In the event of any loss of control of the UAV, the UAV Controller must execute a flight termination in a safe manner wholly within the established exclusion zone.
- 4 The operator must monitor and manage electromagnetic interference (EMI) to the extent necessary to ensure command and control of the UAV.

**Schedule 3      General conditions**

- 1 The UAV must only be flown by:
  - (a) the Chief Controller; or
  - (b) Tristan Piers Worsdall, ARN 828304; or
  - (c) a person authorised by the Chief Controller.

- 2 Before authorising a person to operate the UAV, the Chief Controller must be satisfied that the person:
    - (a) has the knowledge and practical abilities to operate the UAV; and
    - (b) has received appropriate training and testing in relation to the operation of the UAV; and
    - (c) has been approved by the operator to operate the UAV in accordance with the operator's operations manual and this instrument.
  - 3 The operator must maintain records of the training and testing received before a person is authorised to operate the UAV and must retain the records for a period of 2 years.
  - 4 CASA may test the Chief Controller or a UAV Controller on the UAV Controller's knowledge and practical abilities to operate the UAV in accordance with this instrument.
  - 5 A risk assessment must be carried out by the Chief Controller before any operation under this exemption.
  - 6 Subject to clause 7, the operator must conduct operations in accordance with its operations manual.
  - 7 In the event of an inconsistency between a provision of the operator's operations manual and this instrument, this instrument prevails to the extent of the inconsistency.
  - 8 Details of this instrument must be included in the operator's operations manual.
  - 9 The operator must not operate the UAV outdoors:
    - (a) in rain; or
    - (b) if thunderstorms are observed or reported within 5 kilometres of the location of the operation.
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