

[CAAP MEMORANDUM CIRCULAR NO. 21-14, June 26, 2014]

NEW PROVISIONS TO THE PHILIPPINE CIVIL AVIATION REGULATIONS (PCAR) PART 11 11.11 UNMANNED AIRCRAFT VEHICLE (UAV)

*Adopted: 26 June 2014
Date Filed: 02 July 2014*

REFERENCE:

1. Philippine Civil Aviation Regulations Part 11
2. Board Resolution No.: 2011-025 dated 11 April 2011
3. Regulations Amendment Procedures with Board Resolution No.: 2011-054 dated 28 September 2012

NEW REGULATION:

PCAR PART 11

Add to:

11.1.1.2 DEFINITIONS

Certified UAV Controller means a person certified under Subpart 11.11.1.7 as a controller of UAVs.

Controller of a UAV means a person who performs a function that would be, if the UAV were a manned aircraft, a function of its flight crew.

Large UAV means any of the following:

- (a) An unmanned airship with an envelope capacity greater than 100 cubic meters;
- (b) An unmanned powered parachute with a launch mass greater than 150 kilograms;
- (c) An unmanned airplane with a launch mass greater than 150 kilograms;
- (d) An unmanned rotorcraft with a launch mass greater than 100 kg.
- (e) An unmanned powered lift device with a launch mass greater than 100 kg.

Micro UAV means a UAV with a gross weight of 100 grams or less.

Small UAV means UAV that is not a large UAV or a micro UAV.

UAV means unmanned aircraft, other than a balloon or a kite.

11.11 UNMANNED AIRCRAFT VEHICLE (UAV)

11.11.1.1 APPLICABILITY

- (a) This Subpart applies to:
 - (1) the operation of a large UAV; and
 - (2) the operation of a small UAV for purposes other than sport or recreation.

11.11.1.2 OPERATIONS OF UAV'S GENERALLY

11.11.1.2.1 OPERATION NEAR PEOPLE

- (a) Subject to paragraph (b) and (c), a person shall not operate a UAV within 30 meters of a person who is not directly associated with the operation of the UAV.
- (b) Paragraph (a) does not apply in relation to a person who stands behind the UAV while it is taking off.
- (c) Paragraph (a) also does not prevent the operation of a UAV airship within 30 meters of a person if the airship approaches no closer to the person than 10 meters horizontally and 30 ft vertically.

11.11.1.3 WHERE SMALL UAVS MAY BE OPERATED

- (a) No person may operate small UAV outside an approved area unless:
 - (1) the UAV is operated above 400 ft Above Ground Level (AGL), the operator has the Authority's approval to do so; and
 - (2) the UAV stays clear of populous areas.

11.11.1.4 LARGE UAVs - REQUIREMENT FOR CERTIFICATE

- (a) No person may operate a large UAV unless a special certificate of airworthiness (restricted category) or an experimental certificate has been issued in accordance with PCAR Part 5.

11.11.1.5 MAINTENANCE OF LARGE UAVs

- (a) No person shall carry out maintenance on a large UAV unless they comply with any directions given in writing by the Authority in relation to the maintenance of the UAV or the maintenance of UAVs of a class that includes the UAV.

11.11.1.6 REQUIREMENT FOR UAV OPERATOR'S CERTIFICATE

- (a) No person may operate a UAV for hire or reward unless the person holds a UAV operator's certificate that authorizes the person to operate the UAV.

11.11.1.7 APPROVAL OF OPERATION OF LARGE UAVs

- (a) No person may operate a large UAV without the Authority's approval.
- (b) The Authority may impose conditions on an approval in the interest of air navigation safety.
- (c) Without limiting the generality of paragraph (b), the Authority may

impose conditions on an approval:

- (1) prohibiting the operation of the relevant UAV at night or in conditions other than VMC; or
 - (2) restricting the extent to which the UAV maybe operated at night or in conditions other than VMC; or
 - (3) requiring the UAV to stay within a specified area, or
 - (4) requiring the operator to make specified broadcasts.
- (d) The Operator of a UAV must comply with a condition of the approval of its operation.
- (e) If the person is certificated as an operator of large UAVs, and the proposed operation would not contravene any condition of the certification, the Authority may approve the proposed operation, but may impose conditions (including conditions mentioned in paragraph (c)).

11.11.1.8 UAVs NOT TO BE OPERATED OVER POPULOUS AREAS

- (a) No person shall operate a UAV that is not a certificated UAV over a populous area at a height less than the height from which, if any of its components fails, it would be able to clear the area.
- (b) Without the approval of the Authority, no person shall operate a certificated UAV over a populous area at a height less than the height from which, if any of its components fails, it would be able to clear the area.
- (c) In considering whether to give an approval under this paragraph (b), the Authority may take into account:
- (1) the degree of redundancy in the UAV's critical systems;
 - (2) any fail-safe design characteristics of the UAV; and
 - (3) the security of its communications and navigation systems.
- (d) Before giving an approval under paragraph (b), the Authority must be satisfied that the person who intends to operate the UAV will take proper precautions to prevent the proposed flight from being dangerous to people and property.

11.11.1.9 USE OF RADIOTELEPHONE

- (a) No person may control a UAV in controlled airspace, unless he or she:
- (1) holds an aircraft radiotelephone operator's certificate of proficiency;
 - (2) maintains a listening watch on a specified frequency or frequencies; and
 - (3) makes broadcast on a specified frequency or frequencies at the specified interval giving the specified information.

- (b) In paragraph (a):

Specified frequency for particular airspace means a frequency specified from time to time in AIP or by ATC as a frequency for use in the airspace.

Specified information for particular airspace means information specified from time to time in AIP or by ATC as information that must be broadcast in the airspace.

Specified interval for particular airspace means the interval specified from time to time in AIP or by ATC as the interval at which broadcasts

must be made while in that airspace.

- (c) The Authority may direct that a particular person must not control a UAV unless the person:
 - (1) holds an aircraft radiotelephone operator's certificate of proficiency;
 - (2) maintains a listening watch on a frequency or frequencies specified in the direction; and
 - (3) makes broadcasts:
 - (i) on a frequency or frequencies;
 - (ii) at intervals; and
 - (iii) giving information - specified in the direction.
- (d) The person must comply with the direction.
- (e) The Authority may direct, in regard to a particular UAV or type of UAV, that a person must not control the UAV, or a UAV of that type, unless he or she:
 - (1) holds an aircraft radiotelephone operator's certificate of proficiency;
 - (2) maintains a listening watch on a frequency or frequencies specified in the direction; and
 - (3) makes broadcasts:
 - (i) on a frequency or frequencies;
 - (ii) at intervals; and
 - (iii) giving information - specified in the direction.

11.11.1.10 CERTIFICATION OF UAV CONTROLLERS

11.11.1.10.1 APPLICATION FOR CERTIFICATION AS UAV CONTROLLER

- (a) An application for certification as a UAV controller shall include the following information:
 - (1) Details of any flight crew license, air traffic control license or flight operations officer license that the applicant holds (including details of ratings, endorsements and qualifications);
 - (2) Details of any aeronautical experience that the applicant has;
 - (3) Details of any aviation theory examinations the applicant has passed (other than any examination passed in the course gaining a license mentioned in paragraph (1);
 - (4) If the applicant does not hold a license mentioned in paragraph (1), details of any flight radio operator's license or radio operator's certificate of proficiency that the applicant holds;
 - (5) Details of the applicant's experience in operating UAVs;
 - (6) Evidence of the completion of any training course in UAV operation that the applicant has undertaken.
- (b) If the Authority reasonably needs more information about the applicant's qualifications and experience, or a document, to arrive at a decision whether to certify the applicant as a UAV operator, it may ask the applicant in writing for the information or a copy of the document.
- (c) The Authority may refuse to consider, or cease considering, the application until the applicant gives the information or a copy of it.

11.11.1.11 ELIGIBILITY FOR CERTIFICATION AS UAV CONTROLLER

- (a) Only an individual is eligible to be certificated as a UAV controller.
- (b) No person is eligible to be certificated as a UAV controller unless he or she:
 - (1) Qualifies for the issue of a radio operator's certificate of proficiency;
 - (2) Has been awarded a passed rating in an aviation license theory examination (other than a flight radio operator's examination);
 - (3) Has been awarded a passed rating in an instrument rating theory examination;
 - (4) Has completed a training course in the operation of the type of UAV that he or she proposes to operate, conducted by the UAV's manufacturer; and
 - (5) Has at least five (5) hours experience in operating UAVs outside controlled airspace.
- (c) No person shall be certificated as UAV Controller unless he/she holds:
 - (1) A flight crew license with a command instrument rating; or
 - (2) A military qualification equivalent to a license or rating mentioned in paragraph (1); or
 - (3) An air traffic control license or a military qualification equivalent to an air traffic control license.

11.11.1.12 CONDITIONS ON CERTIFICATION AS UAV CONTROLLER

- (a) The Authority may impose a condition on the certification of a person as a UAV controller in the interest of air navigation safety.
- (b) Without limiting the generality of paragraph (1), the following conditions may be imposed:
 - (1) Allow the person to control UAVs of only specified kinds; or
 - (2) Limit the areas where he or she may control UAVs; or
 - (3) Allow him or her to control UAVs only in VMC.
- (c) It is a condition of a UAV controller's certification that he or she must not operate a UAV in controlled airspace unless he or she holds an aircraft radiotelephone operator's certificate or proficiency.

11.11.1.13 CERTIFICATION AS UAV CONTROLLER

- (a) The UAV Controller Certificate shall contain the following information:
 - 1) Name of the person so certified
 - 2) The imposed condition for certification if any, if the person is so certified.

11.11.1.14 HOW LONG A CONTROLLER'S CERTIFICATION REMAINS IN FORCE

- (a) A UAV controller's certification remains in force unless otherwise cancelled.
- (b) However, a UAV controller's certification is not in force during any period of suspension.

11.11.1.15 NOTICE TO CERTIFIED UAV CONTROLLER SHOW CAUSE

- (a) The Authority may give a show cause notice to a certified UAV