



# **CIVIL AVIATION SAFETY AUTHORITY OF PNG**

## **PNG Civil Aviation Rule Part 102**

### **Unmanned Aircraft Operator Certification**

Applicable 14 December 2020

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**DESCRIPTION**

Part 102 prescribes the requirements for the certification and operation of unmanned aircraft that do not operate under Part 101.

Part 101 and Part 102 use different terms which are defined in different parts of the rules:

- for Part 102, the key term is ‘unmanned aircraft’, and
- Part 101 uses the term ‘remotely piloted aircraft’, a subclass of unmanned aircraft.

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**BULLETIN**

This Part first came into force on 1 May 2017 and now incorporates the following amendment:

<b>Amendment</b>	<b>Effective Date</b>
Amendment 1	14 December 2020

**Summary of amendments:****Amendment 1:**

(Docket 20/08/CAR102/24)

Rule 102.1 amended. Added requirement that all unmanned aircraft operations for hire or remuneration (i.e. commercial) or other-than-low risk are subject to Part 102 authorisation or an UAOC.

Rule 102.3 amended. Added requirement for all unmanned aircraft of certified all-up mass of 250gm or more undertaking commercial, or ‘other-than-low risk’, or ‘other-than-recreational’, or ‘other-than-Open Category Operations’ under rule 101.219 unmanned aircraft operations are subject to Part 102.

Rule 102.7 amended: Added provision for ‘authorisation’ and clarified that all commercial, other-than-low risk, other than recreational and other than Open Category Operations under rule 101.219 unmanned aircraft operations are subject to Part 102.

Rule 102.9, and 102.9(a) amended. Added provision for ‘authorisation’ and reference made to 102 rule.

Rule 102.11 amended. Added provision for ‘authorisation’ in title; (b)(2) added ICAO provisions for identification of Remote Chief Pilot and responsibilities and functions: (b)(4) Added reference to safety management system under new rule 102.29.

Rules 102.13, 102.15, 102.17, 102.21, 102.23 amended. Added provision for ‘authorisation’

Rule 102.27 New Rule. Added ICAO provisions for Safety Management Systems for unmanned aircraft operator authorisation (UAOA) or UAOC holders.

Rule 102.29 New rule. Added ICAO provisions for Safety Management Systems for unmanned aircraft operator authorisation (UAOA) or UAOC holders.

Appendix A New Appendix. Added ICAO provisions for personnel and safety management.

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## Subpart A — General

### 102.1 Purpose

The purpose of this Part is to prescribe the rules —

- (a) governing the certification of a person who operates an unmanned aircraft in Papua New Guinea for the purpose of hire or remuneration;
- (b) that enable the Director to determine whether to grant an unmanned aircraft operator certificate to a person after giving consideration to whether that person—
  - (1) has conducted an adequate assessment of the risk to safety of conducting the proposed unmanned aircraft operation; and
  - (2) has developed procedures to adequately manage the risks and to ensure that the operation is conducted safely.

### 102.3 Applicability

This Part applies to a person who operates an unmanned aircraft with a maximum certified all up mass of 250gm or more—

- (a) as described in rule 102.1(a); or
- (b) for other than recreational purposes; or
- (c) in accordance with Part 101 and who wishes to apply for an unmanned aircraft operator authorisation or certificate; or
- (d) other than in accordance with the open category requirements of rule 101.219:

### 102.5 Definitions

**Exposition**, unless the context otherwise requires, means the exposition required by rule 102.11.

### 102.7 Requirement for authorisation or certificate

Subject to rule 102.3, a person must not operate an unmanned aircraft other than in accordance with Part 101 except under the authority of, and in accordance with the terms of, a valid authorisation or certificate to operate an unmanned aircraft issued by the Director under this Part.

### 102.9 Application for certificate or authorisation to operate an unmanned aircraft

- (a) Before operating an unmanned aircraft should be in accordance with the requirements of rule 102.3 a person must apply for an unmanned aircraft operator authorisation or certificate.
- (b) A person who operates an unmanned aircraft in accordance with Part 101 may apply for an unmanned aircraft operator certificate.
- (c) A person in (a) or (b) must apply by—
  - (1) submitting an application to the Director; and
  - (2) paying the appropriate fee specified in regulations.

- (d) An application must include—
- (1) the name and address for service in Papua New Guinea of the applicant; and
  - (2) the details required by rule 102.15 for the operations specification; and
  - (3) the applicant's exposition required by rule 102.11; and
  - (4) any other information relating to the application as may be required by the Director.

### **102.11 Unmanned aircraft operator application and exposition**

- (a) An applicant for an unmanned aircraft operator authorisation or certificate must provide the Director with an exposition that is acceptable to the Director.
- (b) The exposition must address the following matters, having regard to the nature, degree and risk of the intended operation—
- (1) the identification of a person who will have primary responsibility for the operation; and
  - (2) the identification of a person who is;
    - (i) to have or is likely to have control over the exercise of the privileges under the certificate: and
    - (ii) the remote chief pilot as prescribed in Appendix A:
  - (3) details of the physical locations to be used in the operation; and
  - (4) a safety management system in accordance with rule 102.29; and
  - (5) procedures for reporting information to the Authority as required by Part 12; and
  - (6) operating requirements for personnel licensing, qualifications, training and competency including pilot and support crew qualifications, training or medical requirements as required by Part 61; and
  - (7) details of the number and specifications of the aircraft to be used, including any identification system used on the aircraft (colour schemes, unique identification numbers, markings) as required by Part 47; and
  - (8) details of the control system to be used to pilot the aircraft; and
  - (9) procedures for maintenance of aircraft and measures to ensure continued airworthiness; and
  - (10) in-flight procedures including minimum distances from persons or property; and
  - (11) procedures for handling cargo or dropping items, if such operations are intended; and
  - (12) initial airworthiness standards that must be met; and
  - (13) procedures for controlling, amending and distributing the exposition.
- (c) An exposition may adopt, by reference, a requirement in a Civil Aviation Rule for the purpose of mitigating or managing a risk identified in the safety management system required by rule 102.11(b)(4).
- (d) The Director may require only those matters in paragraph (b) that the Director considers are appropriate in the particular circumstances, to be contained in the exposition.
- (e) The exposition must remain acceptable to the Director.

### **102.13 Grant of authorisation or certificate**

- (a) The Director may, in accordance with section 49 of the Act, grant an authorisation or a certificate to a person who has applied under rule 102.9
- (b) When granting an authorisation or a certificate under (a), the Director may—
  - (1) impose requirements for unmanned aircraft systems and may specify procedures to be followed by the operator of any unmanned aircraft that are operated under the authority of the authorisation or certificate; and
  - (2) in accordance with section 49(1) of the Act, specify any additional conditions that the Director considers necessary in the interests of aviation safety; and
  - (3) after considering the type of aircraft to be used, determine that any aircraft to be operated under the authorisation or certificate must be registered and display identification markings in accordance with Part 47 if the Director considers that it is necessary in the interests of aviation safety.

### **102.15 Operations specification**

- (a) If the Director grants an unmanned aircraft operator authorisation or certificate under 102.13, the authorisation or certificate must be issued with an operations specification containing the details described in (b).
- (b) The operations specification must include:
  - (1) details of the physical location of the certificate holder's principal base of operations; and
  - (2) the authorisation or certificate holder's address for service in Papua New Guinea; and
  - (3) a list of any business names under which the authorisation or certificate holder is approved to operate; and
  - (4) the privileges and operations that the operator is permitted to perform, including:
    - (i) the number, type and description, including, if applicable, the serial number and registration, of every aircraft that is authorised for use; and
    - (ii) identification of the geographical areas of operations approved by the Director; and
    - (iii) any exemption granted from any requirement of this or any other Part; and
  - (5) any additional condition that the Director determines is necessary in the interests of aviation safety.

### **102.17 Privileges of authorisation or certificate holder**

- (a) The holder of an unmanned aircraft operator authorisation or certificate is authorised to perform the operations specified in the accompanying operations specification.
- (b) Unless the exposition required by 102.11 specifies otherwise, the holder of an unmanned aircraft operator certificate is not required to comply with Civil Aviation Rules Parts 20, 21, 26, 39, 43, 63, 65, 66, 67, 91, 92, 93, 95, 119, 129, and 137.

**102.19 Duration of certificate**

- (a) When granting an authorisation or renewing a certificate under this Part the Director must specify a date on which the authorisation or certificate will expire.
- (b) The Director may not specify a date under paragraph (a) that is later than 5 years after the date on which the certificate was granted.

**102.21 Conditions of operation of unmanned aircraft**

- (a) A holder of an unmanned aircraft operator authorisation or certificate must comply with—
  - (1) Part 101, to the extent the requirements of Part 101 are not inconsistent with the operations specified in the operations specifications;
  - (2) the conditions imposed by the Director on the unmanned aircraft operations specification; and
  - (3) the exposition required by 102.11.
- (b) The authorisation or certificate holder is responsible for ensuring that any other operator or other personnel involved in an operation conducted under the authority of that authorisation or certificate are notified of and comply with the requirements of (a).

**102.23 Changes to exposition**

- (a) Each holder of an unmanned aircraft operator authorisation or certificate must—
  - (1) ensure that the exposition required by rule 102.11 is amended—
    - (i) so that it remains a current description of the authorisation or certificate holder's operation; and
    - (ii) to ensure continued compliance with the Civil Aviation Rules that have been adopted under rule 102.11(c); and
  - (2) provide the Director with a copy of each amendment to the exposition as soon as practicable after the amendment is incorporated into the exposition; and
  - (3) make such amendments to the exposition as the Director considers necessary in the interests of aviation safety.
- (b) If a holder of an unmanned aircraft operator authorisation or certificate proposes to change any of the following, prior acceptance by the Director is required:
  - (1) the identification of any person who is to have or is likely to have control over the exercise of the privileges under the authorisation or certificate;
  - (2) the identification of locations from which the authorisation or certificate holder conducts unmanned aircraft operations.

**102.25 Renewal of certificate**

A holder of a current unmanned aircraft operator certificate who wishes to continue to exercise the privileges of the certificate beyond its expiry date must apply for the renewal of the certificate in accordance with section 49 of the Act.

**102.27 Retention of records**

- (a) A holder of an unmanned aircraft operator authorisation or certificate must maintain records containing:
- (1) the names of the remote pilots and other crew members involved in each flight, in respect of the system, the time of each flight or series of flights; and
  - (2) maintenance action, modification or repair performed on the system, including:
    - (i) name of person performing the work;
    - (ii) the dates work was performed;
    - (iii) in the case of modification, the manufacturer, model and description of parts or equipment modifying the system; and
    - (iv) if applicable, any instruction provided to complete the work.
- (b) The owner of an unmanned aircraft who transfers ownership to another person must, at the time of transfer, deliver to that person all records referred to in paragraph (a)(2).
- (c) The owner of an unmanned aircraft must ensure that the records referred to in paragraphs (a)(1) and (a)(2)
- (1) are made available to the Director on request and are retained for a period of:
    - (i) for the records referred to in paragraph (a)(1), 12 months after the day they are recorded;
    - (ii) for records referred to in paragraph (a)(2), 24 months after the day they are recorded.

**102.29 Safety management system**

The holder of an unmanned aircraft operator authorisation or certificate must establish and maintain a system for safety management that—

- (a) includes the following:
- (1) a safety policy on which the system for safety management is based;
  - (2) a process for risk management that identifies hazards to aviation safety, and evaluates and manages the associated risks;
  - (3) safety assurance measures that ensure:
    - (i) hazards are documented in a hazard register as prescribed in Appendix A; and
    - (ii) incidents and accidents are internally reported and analysed, and action is taken to prevent recurrence; and
    - (iii) goals for the improvement of aviation safety are set and the attainment of these goals are measured; and
    - (iv) there is a safety management program that includes the conduct of internal audits and regular reviews of the system for safety management; and
  - (4) training that ensures personnel are competent to fulfil their safety responsibilities; and
- (b) documents all processes required to establish and maintain the system for safety management; and
- (c) is commensurate with the size of the organization, the nature and complexity of the activities undertaken by the operator, and the hazards and associated risks inherent in the activities undertaken by the operator.

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## Appendix A — Requirements for personnel and safety management

This Appendix prescribes—

- (a) in paragraph A.1, the remote chief pilot responsibilities and functions under rule 102.11(b)(2)(ii);
- (b) in paragraph A.2, the hazard register requirements under rule 102.20(a)(3)(i)

### A.1. Remote chief pilot

The remote chief pilot is responsible for the following functions:

- (a) ensuring unmanned aircraft operations are conducted in accordance with the civil aviation regulations; and
- (b) maintaining records of the qualifications held by each person operating an unmanned aircraft for the certificate holder; and
- (c) monitoring the operational standards and proficiency of each person operating an unmanned aircraft for the certificate holder; and
- (d) maintaining a complete and up-to-date reference library of operational documents required under the rules for the types of operations conducted by the certificate holder.

### A.2. Hazard register

For a proposed operation or series of operations, the hazard register must:

- (a) identify known and likely hazards to people, property and other aircraft; and
- (b) include an assessment of the associated risks for each of the hazards identified in paragraph (a); and
- (c) contain descriptions of the measures that can be implemented to mitigate or manage the risk;