

ANNEX TO THE MINISTERIAL REGULATIONS N.../MOS/TRANS/...COMPLEMENTING THE MINISTERIAL REGULATIONS N° 02/MOS/TRANS/015 OF 08/04/2015 IMPLEMENTING THE LAW N° 75/2013 OF 11/09/2013 ESTABLISHING REGULATION GOVERNING CIVIL AVIATION.

CIVIL AVIATION (UNMANNED AIRCRAFT SYSTEM (UAS) REGULATIONS 2015

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**CIVIL AVIATION (UNMANNED AIRCRAFT SYSTEM)
REGULATIONS**

PART 1- GENERAL

Citation 1. These Regulations shall be cited as Civil Aviation (Unmanned Aircraft System) Regulations, 2016.

Interpretation 2. The following definitions are used in the context of remotely piloted aircraft system operations:

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

a) a person is fatally or seriously injured as a result of:

— being in the aircraft, or

— direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or

— direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or

inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew;
or

b) the aircraft sustains damage or structural failure which:

— adversely affects the structural strength, performance or flight characteristics of the aircraft, and

— would normally require major repair or replacement of the affected component,

except for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

c) the aircraft is missing or is completely inaccessible.

Aerial work. An aircraft operation in which an aircraft is used for specialized services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement.

Aerodrome. A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aircraft. Any machine that can derive support in the atmosphere from the

reactions of the air other than the reactions of the air against the earth's surface.

Air traffic. All aircraft in flight or operating on the manoeuvring area of an aerodrome.

Air traffic control clearance. Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.

Air traffic control service. A service provided for the purpose of:

- a) preventing collisions:
 - 1) between aircraft, and
 - 2) on the manoeuvring area between aircraft and obstructions; and
- b) expediting and maintaining an orderly flow of air traffic.

Air traffic control unit. A generic term meaning variously, area control centre, approach control unit or aerodrome control tower.

Air traffic service. A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Air traffic services unit. A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.

Appropriate ATS authority. The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned.

Appropriate authority. The authority having jurisdiction over the area in which the aircraft concerned is operated;

Autonomous aircraft. An unmanned aircraft that does not allow pilot intervention in the management of the flight;

Autonomous operation. An operation during which an unmanned aircraft is operating without pilot intervention in the management of the flight.

Authority. Rwanda Civil Aviation Authority established by Law No. 53/2011 of 14/12/2011, as amended to date.

Command and control (C2) link. The data link between the remotely piloted aircraft and the remote pilot station for the purposes of managing the flight.

Continuing airworthiness. The set of processes by which an aircraft, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

Control area. A controlled airspace extending upwards from a specified limit above the earth.

Controlled aerodrome. An aerodrome at which air traffic control service is provided to aerodrome traffic.

Controlled airspace. An airspace of defined dimensions within which air

traffic control service is provided in accordance with the airspace classification.

Note.— *Controlled airspace is a generic term which covers ATS airspace Classes A, B, C, D and E as described in Annex 11, 2.6.*

Controlled flight. Any flight which is subject to an air traffic control clearance.

Control zone. A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

Data link communications. A form of communication intended for the exchange of messages via a data link.

Detect and avoid. The capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action.

Fatigue. A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety-related duties.

Human Factors principles. Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

Human performance. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

IFR. The symbol used to designate the instrument flight rules.

IFR flight. A flight conducted in accordance with the instrument flight rules.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note.— The types of incidents which are of interest for safety-related studies include the incidents listed in Annex 13, Attachment C.

Instructions for continuing airworthiness (ICA). A set of descriptive data, maintenance planning and accomplishment instructions, developed by a design approval holder in accordance with the certification basis for the aeronautical product. The ICAs provide air operators with the necessary information to develop their own maintenance programme and also for approved maintenance organizations to establish the accomplishment instructions.

Instrument meteorological conditions (IMC). Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

Landing area. That part of a movement area intended for the landing or take-off of aircraft.

Lost Link. The loss of command and control link contact with the UAS such that the pilot can no longer manage the aircraft's flight.

Maintenance. The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification and the embodiment of a modification or repair.

National Civil Aviation Security Committee (NCASC). The Committee established by the Prime Minister's Order N° 123/03 of 30/04/2013.

Operational control. The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.

Operations manual. A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.

Operations specifications. The authorizations, conditions and limitations associated with the remotely piloted aircraft system operator certificate and subject to the conditions in the operations manual.

Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Public unmanned aircraft: Unmanned aircraft owned or used (chartered to provide transportation or other commercial air service) only for the Government of Rwanda, or owned and used in the military/police services.

Public unmanned aircraft operations. Unmanned aircraft operations involving provision of public (government) services.

Prohibited area. An airspace of defined dimensions, within which the flight of aircraft is prohibited.

Remote pilot. A person charged by the operator with duties essential to the operation of a remotely piloted aircraft and who manipulates the flight controls, as appropriate, during flight time.

Remote pilot station. The component of the remotely piloted aircraft system containing the equipment used to pilot the remotely piloted aircraft.

Remotely piloted aircraft (RPA) (commonly known as drone). An unmanned aircraft which is piloted from a remote pilot station.

Remotely piloted aircraft system (RPAS). A remotely piloted aircraft, its associated remote pilot station(s), the required command and control links and any other components as specified in the type design.

Remotely piloted aircraft system operations manual. A manual, acceptable to the Authority, containing normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the remotely piloted aircraft and other material relevant to the operation of the remotely piloted aircraft system.

Risk mitigation. The process of incorporating defences or preventive controls to lower the severity and/or likelihood of a hazard's projected consequence.

Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

Segregated airspace. Airspace of specified dimensions allocated for exclusive use to a specific user(s).

Traffic avoidance advice. Advice provided by an air traffic services unit specifying manoeuvres to assist a pilot to avoid a collision.

Traffic information. Information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision.

Unmanned aircraft (UA). An aircraft which is intended to operate with no pilot on board.

Unmanned aircraft system (UAS). An aircraft and its associated elements which are operated with no pilot on board.

VFR. The symbol used to designate the visual flight rules.

VFR flight. A flight conducted in accordance with the visual flight rules.

Visibility. Visibility for aeronautical purposes is the greater of:

- a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background;
- b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.

Visual line-of-sight (VLOS) operation. An operation in which the remote pilot maintains direct unaided visual contact with the remotely piloted aircraft

Visual meteorological conditions (VMC). Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

Application

- 3.**
- (1) These Regulations apply to any person conducting unmanned aircraft operations within Rwanda airspace with a maximum take-off weight not exceeding 25 kilograms and flown only within the visual line of sight of the pilot for the following activities:
 - (a) Aerial photography/Filming;
 - (b) Agriculture for crop monitoring/inspection;
 - (c) Search and rescue or delivery of emergency supplies;
 - (d) Research and development;
 - (e) Educational/academic uses; and
 - (f) Recreational/Leisure.
 - (2) These regulations do not apply to:
 - (a) toy aircraft;
 - (b) public unmanned aircraft; and
 - (c) Unmanned aircraft of a maximum take-off weight exceeding

25 kg.

- (3) Unmanned aircraft of a maximum take-off weight exceeding 25 kg shall comply with airworthiness certification, continuing airworthiness, operations, instruments, pilot licensing and air traffic management applicable to manned aircraft.

PART II – REMOTELY PILOTED AIRCRAFT SYSTEMS

Subpart 1 – Registration and Marking

Registration of remotely piloted aircraft

4. (1) A person shall not operate a remotely piloted aircraft within Rwanda unless the remotely piloted aircraft has been registered by the Authority and a certificate of registration is issued to its owner in accordance with these Regulations.
- (2) A remotely piloted aircraft shall acquire Rwanda nationality when registered under these Regulations.
- (3) A remotely piloted aircraft shall be eligible for registration if it is owned by:
 - (a) the Government of Rwanda or one of its institutions;
 - (b) a Rwandan or any other person legally residing in Rwanda;
 - (c) bodies incorporated under the Rwandan laws.
- (4) The owner of a remotely piloted aircraft shall apply to the Authority by sending the following items:
 - (a) an application form provided in *Schedule 1* of these Regulations

providing information about the remotely piloted aircraft and contact information for the remotely piloted aircraft owner;

(b) evidence of ownership (such as a bill of sale); and

(c) the registration fee of Rwf 110,000.

(5) If the applicant meets the registration requirements, the Authority shall register the remotely piloted aircraft by assigning a registration number (“9XR-....”) and issue a certificate of registration to the owner.

(6) The Authority shall establish and maintain a remotely piloted register containing the following particulars-

(a) the number of the certificate;

(b) the registration mark assigned to remotely piloted aircraft by the Authority;

(c) the name of the manufacturer and the manufacturer's designation of the remotely piloted aircraft ;

(d) the serial number of the remotely piloted aircraft ;

(e) the name and address of the owner

(f) the use or conditions with regard to which remotely piloted aircraft is registered.

(7) If a remotely piloted aircraft is leased or is the subject of a lease,

charter or hire purchase agreement to a person qualified under sub-regulation (1) (c), the Authority shall temporarily register the remotely piloted aircraft in the names of the parties to the charter or hire purchase agreement for the duration of the lease, charter or hire-purchase agreement.

(8) The certificate of registration shall not be transferable.

**Display of
Registration
Marks**

5. (1) The owner of the remotely piloted aircraft shall display Authority-issued registration marks prominently on the remotely piloted aircraft.
- (2) The registration marks shall be displayed in the largest practicable manner.

**Identification
plate**

6. (1) A remotely piloted aircraft shall carry an identification plate inscribed with its registration mark and be made of fireproof metal or other fireproof material of suitable physical properties.
- (2) The identification plate must be commensurate with the size of the remotely piloted aircraft and affixed conspicuously to the exterior of the remotely piloted aircraft.

Subpart 2 – Security and Privacy

**Security vetting
for remote pilots
or the owner**

7. (1) On receipt of an application for a remote pilot licence or registration of a remotely piloted aircraft, the Authority shall verify compliance and the accuracy of the application and provide the applicant's information to competent security agencies for security vetting prior to certificate issuance.
- (2) The Authority shall only issue certificates to individuals who have

successfully completed a security threat assessment conducted by the competent security agencies.

- (3) The security threat assessment shall consist of a check of intelligence-related databases, including Interpol and international databases, terrorist watch lists, and other sources relevant to determining whether an individual poses or may pose a threat to national security, and that confirm the individual's identity.
- (4) If the competent security agencies determines that the applicant poses a security risk, the Authority shall deny the application for a certificate.
- (5) A holder of a remote pilot licence or the certificate of registration who will be determined to pose a security risk shall have his certificate amended, modified, suspend, or revoke (as appropriate) based on the competent security agencies' security findings.
- (6) The competent security agencies shall conduct background and criminal record checks every 24 months on all personnel employed in the deployment, handling, and storage of remotely piloted aircraft.

**Remotely Piloted
Operator or
owner's security
measures**

8. The holder of an ROC issued under these Regulations shall:
- (a) ensure that remotely piloted aircraft not in use are stored in a secure manner to prevent and detect unauthorised interference or use;
 - (b) ensure that the remotely piloted aircraft is protected from acts of unlawful interference;

- (c) ensure that the remotely piloted aircraft is stored and prepared for flight in a manner that will prevent and detect tampering and ensure the integrity of vital systems;
- (d) designate a security coordinator responsible for the implementation, application and supervision of the security controls; and
- (e) ensure that all personnel employed in the deployment, handling, and storage of remotely piloted aircraft have received security awareness training.

**Notification to
the local
authorities**

- 9.**
- (1) No remotely piloted aircraft shall be launched or recovered from any public or private property without consent.
 - (2) The remote pilot or the owner shall seek permission or let the appropriate authorities (local authorities or police), as well as people around the area, know before starting the operations.

Privacy of others

- 10.**
- (1) Any person conducting operations using a remotely piloted aircraft fitted with cameras shall operate them in a responsible way to respect the privacy of others.
 - (2) No person shall use a remotely piloted aircraft to do any of the following:
 - (a) Conduct surveillance of:
 - (i) A person without the person's consent.

- (ii) Private real property without the consent of the owner.
- (b) Photograph or film an individual, without the individual's consent, for the purpose of publishing or otherwise publicly disseminating the photograph or film. This requirement shall not apply to newsgathering, or events or places to which the general public is invited.
- (3) Infrared or other similar thermal imaging technology equipment fitted on remotely piloted aircraft shall be for the sole purpose of:
 - (a) scientific investigation;
 - (b) scientific research;
 - (c) mapping and evaluating the earth's surface, including terrain and surface water
 - (d) bodies and other features;
 - (e) investigation or evaluation of crops, livestock, or farming operations;
 - (f) investigation of forests and forest management; and
 - (g) other similar investigations of vegetation or wildlife.

Subpart 3 – Airworthiness Certification

- Remotely Piloted 11.** (1) No airworthiness certification shall be required for remotely piloted

**Aircraft System
Airworthiness**

aircraft system operations that are subject to these Regulations.

- (2) Without prejudice to sub-regulation (1), no person shall operate a Remotely Piloted Aircraft System unless it is in a condition for safe operation. This condition must be determined during the preflight check required under Regulation 19 of these Regulations
- (3) The remote pilot must discontinue the flight when he or she knows or has reason to know that continuing the flight would pose a hazard to other aircraft, people, or property.

**Maintenance and
inspection.**

12. A remote pilot or the owner of a remotely piloted aircraft system must:

- (a) Maintain the remotely piloted aircraft system in a condition for safe operation; and
- (b) Inspect the remotely piloted aircraft system prior to flight to determine that the system it is in a condition for safe operation.
- (c) Keep a log of all the checks performed before each flight operation. These logs could then be consulted in case of a minor incident or a serious accident.

**Inspection,
testing, and
demonstration of
compliance.**

13. (1) A remote pilot or an owner of a remotely piloted aircraft system must, upon request, make available to the Authority:

- (a) The remote pilot licence with a remotely piloted aircraft rating;
- (b) The certificate of registration for the remotely piloted aircraft

system being operated; and

(c) Any other document, record, or report required to be kept by a remote pilot or owner of a remotely piloted aircraft under these Regulations.

(2) The remote pilot, or owner of a remotely piloted aircraft system must, upon request, allow the Authority to make any test or inspection of the remotely piloted aircraft system, the remote pilot, and, to determine compliance with these Regulations.

Accident reporting.

14. A remote pilot must, immediately but not later than 24 hours, report to the Authority any operation of the remotely piloted aircraft that involves the following accident:

(a) any injury to any person; or

(b) damage to any property, other than the remotely piloted aircraft.

Subpart 4 – Operating Rules

Hazardous operation.

15. No person shall:

(a) Operate a remotely piloted aircraft system in a careless or reckless manner so as to endanger the life or property of another; or

(b) Allow an object to be dropped from a remotely piloted aircraft if such action endangers the life or property of another.

Daylight operation.

16. All operations of a remotely piloted aircraft system must be between the hours of official sunrise and sunset. Night operations are not permitted

under these regulations.

Visual line of sight (VLOS) aircraft operation. 17. The remote pilot operating shall maintain continuous unaided visual contact with the remotely piloted aircraft sufficient to be able to:

- (a) Maintain operational control of the remotely piloted aircraft ,
- (b) Know the remotely piloted aircraft 's location;
- (c) Determine the remotely piloted aircraft 's attitude, altitude, and direction;
- (d) Observe the airspace for other air traffic or hazards; and
- (e) Determine that the remotely piloted aircraft does not endanger the life or property of another.

Operation of multiple remotely piloted aircraft system. 18. A person shall not act as a remote pilot in the operation of more than one remotely piloted aircraft system at the same time.

Operation near aircraft; right-of-way rules. 19. (1) A remote pilot must maintain awareness so as to see and avoid other aircrafts and vehicles and must yield the right-of-way to all aircrafts and vehicles.

- (a) In order to maintain awareness so as to see other aircrafts and vehicles, the remote pilot must, at each point of the remotely piloted aircraft's flight, satisfy the criteria specified in Regulation 17.

(b) Yielding the right-of-way means that the remotely piloted aircraft must give way to the aircraft or vehicle and may not pass over, under, or ahead of it unless well clear.

(2) No person may operate a remotely piloted aircraft so close to another aircraft as to create a collision hazard.

Operation over people. 20. No person shall operate a remotely piloted aircraft at any height within a lateral distance of 30 m from any person or an open-air assembly/crowd of persons.

Operation in Controlled airspace. 21. (1) A remotely piloted aircraft shall not operate in a controlled airspace unless the operator has prior authorization from the Air Traffic Control (ATC) facility having jurisdiction over that airspace.

(2) A remotely piloted aircraft shall only operate at least 10 km away from the centre of any aerodrome.

(3) Any person conducting remotely piloted aircraft operations shall ensure that the appropriate air traffic service unit (s) is advised immediately anytime the flight of a remotely piloted aircraft inadvertently enters into controlled airspace.

Operation in prohibited or restricted areas. 22. No person shall operate a remotely piloted aircraft in prohibited or restricted areas published in Rwanda AIP unless that person has a written permission from the using or controlling agency, as appropriate.

Preflight familiarization, inspection, and actions for 23. (1) Prior to flight, the remote pilot must:

(a) Assess the operating environment, considering risks to persons and property in the immediate vicinity, both on the surface and

**remotely piloted
aircraft
operation.**

in the air. This assessment must include:

- (i) Local weather conditions;
 - (ii) Local airspace and any flight restrictions;
 - (iii) The location of persons and property on the surface; and
 - (iv) Other ground hazards.
- (b) Ensure that all persons involved in the operation of the remotely piloted aircraft receive a briefing that includes operating conditions, emergency procedures, contingency procedures, roles and responsibilities, and potential hazards;
- (c) Ensure that all links between ground station and the remotely piloted aircraft are working properly; and
- (d) If the remotely piloted aircraft is powered, ensure that there is enough available power for the remotely piloted aircraft system to operate for the intended operational time and to operate after that for at least five minutes.

- (2) Each person involved in the operation must perform the duties assigned by the remote pilot.

**Operating
limitations for
remotely piloted
aircraft.**

- 24.** (1) A remote pilot must comply with all of the following operating limitations when operating a remotely piloted aircraft system:

- (a) The airspeed of the remotely piloted aircraft shall not exceed 87 knots (100 miles per hour) calibrated airspeed at full power in

level flight;

- (b) The altitude of the remotely piloted aircraft shall not be higher than 300 feet (100 metres) above ground level;
- (c) The lateral distance from any person, building, structure, vehicle, vessel or animal not associated with the remotely piloted aircraft operation shall be of at least 30 m;
- (d) The lateral distance between the remotely piloted aircraft and the remote pilot shall not be more than 300 metres.
- (e) The remotely piloted aircraft shall not be flown over or within any congested area of a city, town or settlement.
- (f) The minimum flight visibility, as observed from the location of the ground control station must be no less than 3 statute miles (5 kilometres); and
- (g) The minimum distance of the remotely piloted aircraft from clouds must be no less than:
 - (i) 500 feet (150 metres) below the cloud; and
 - (ii) 2,000 feet (600 metres) horizontally away from the cloud.

**Operations
Manual**

- 25.** (1) In addition to operation procedures established by the manufacturer, the owner or remote pilot of a remotely piloted aircraft shall establish an operations manual, acceptable to RCAA, to be followed during normal, lost link and emergency operations.

- (2) A template for development of an operations manual for a remotely piloted aircraft is provided in *schedule 2* of these Regulations.
- (3) The holder of an ROC shall establish a safety management system commensurate with the size of the organisation or entity and the complexity of its operations.
- (4) The safety management system shall include –
 - (a) lines of responsibility and accountability;
 - (b) safety policy;
 - (c) identification of aviation safety hazards encountered by the activities of the operator, assessment and mitigation of the associated risks, including taking actions and verifying their effectiveness;
 - (d) a process to identify actual and potential safety hazards and assess the associated risks;
 - (e) a process to develop and implement remedial action necessary to maintain an acceptable level of safety;
 - (f) provision for continuous and regular assessment of the appropriateness and effectiveness of safety management activities.
- (5) The holder of an ROC shall establish a system of record-keeping that allows adequate storage and reliable traceability of all activities conducted.
- (6) The format of the records shall be specified in the ROC holder's operations manual.

- (7) Records shall be stored for at least 5 years in a manner that ensures protection from damage, alteration and theft.

Insurance

- 26. Any person conducting remotely piloted aircraft operations shall subscribe for liability insurance of not less than US\$ 1,000,000 (one million American dollars) covering risks of public liability pertaining to the operation of the remotely piloted aircraft.

**Remotely piloted
aircraft system
Operator
certificate (ROC)**

- 27.
 - (1) An operator or owner of remotely piloted aircraft system must have an ROC issued in accordance with these Regulations.
 - (2) The ROC shall grant the remotely piloted aircraft system operator the authority to conduct operations in accordance with the conditions and limitations detailed in the operations specifications attached to the ROC.
 - (3) The issuance of an ROC by the Authority shall be dependent upon the remotely piloted aircraft system operator demonstrating method of control and supervision of flight operations and training consistent with the nature and extent of the operations specified.
 - (4) Application for an ROC shall be sent to the Authority:
 - (a) on a form and manner prescribed by the Authority; and
 - (b) containing any other information the Authority requires the applicant to submit.

- (c) accompanied by proof of payment of 50, 000 for ROC issuance.
- (5) The Authority shall issue an ROC to an applicant if that applicant:
- (a) has its principal place of business and it is registered in Rwanda;
 - (b) meets the requirements of these Regulations;
 - (c) has qualified remote pilots to safely operate the remotely piloted aircraft system; and
 - (e) has met any other requirements as specified by the Authority.
- (6) The ROC shall contain at least the following:
- (a) the issuing authority;
 - (b) the ROC number and its expiration date;
 - (c) the remotely piloted aircraft system operator name, trading name (if different) and address of the principal place of business;
 - (d) the date of issue and the name, signature and title of the authority representative;
 - (e) the location where the contact details of operational management can be found;
 - (f) the description of the types of operations authorized;
 - (g) the type(s) or model(s) of remotely piloted aircraft authorized for

use; and

(i) the authorized areas of operation.

(7) An ROC shall be valid for a period of 12 months

(8) The continued validity of an ROC shall depend upon the remotely piloted aircraft system operator maintaining the requirements of Sub-regulation 3 under the supervision of the Authority.

Subpart 5 – Remote Pilot Licensing

- | | | |
|--|------------|---|
| Remote pilot licence | 28. | No person shall operate a remotely piloted aircraft system for purposes of flight unless that person has a remote pilot licence with a remotely piloted aircraft rating issued pursuant to these Regulations |
| Medical condition and drug or alcohol use | 29. | <p>(1) No person shall act as a remote pilot if he or she knows or has reason to know that he or she has a physical or mental condition that would interfere with the safe operation of a remotely piloted aircraft system.</p> <p>(2) A person shall not operate a remotely piloted aircraft if that person is or appears to be under the influence of:</p> <p>(a) alcohol, or</p> <p>(b) any drug that affects that person's faculties in any way contrary to safety.</p> |
| Responsibility of the remote pilot | 30. | <p>(1) The remote pilot is directly responsible for, and is the final authority as to the operation of the remotely piloted aircraft system.</p> |

- (2) The remote pilot must ensure that the remotely piloted aircraft will pose no undue hazard to other aircraft, people, or property in the event of a loss of control of the remotely piloted aircraft for any reason.

Eligibility for a remote pilot licence

- 31. In order to be eligible for a remote pilot licence, a person must:
 - (a) Be at least 18 years of age;
 - (b) Be able to read, speak, write, and understand the English language.
 - (c) Pass an initial aeronautical knowledge test covering the areas of knowledge specified in Regulation 35 (1); and
 - (d) Not know or have reason to know that he or she has a physical or mental condition that would interfere with the safe operation of a remotely piloted aircraft system.
 - (e) Hold a current Class 3 Medical Certificate

Issuance of a remote pilot licence with a remotely piloted aircraft system rating.

- 32. (1) An applicant for a remote pilot licence with a remotely piloted aircraft system rating under these Regulations must make the application in a form and manner acceptable to the Authority.
- (2) The application must include:
 - (a) A knowledge test report showing that the applicant passed an initial aeronautical knowledge test, or recurrent aeronautical knowledge test; and
 - (b) A certification signed by the applicant stating that the applicant

does not know or have reason to know that he or she has a physical or mental condition that would interfere with the safe operation of a remotely piloted aircraft system.

- (c) Proof of payment of 50, 000 Rwandan Francs for remote pilot licence issuance.

(3) A remote pilot licence shall be valid for a period of 24 months.

**Aeronautical
knowledge
recency.**

33. A person shall not operate a remotely piloted aircraft system unless that person has completed one of the following, within the previous 24 calendar months:

- (a) Passed an initial aeronautical knowledge test covering the areas of knowledge specified in Regulation 35 (1); or
- (b) Passed a recurrent aeronautical knowledge test covering the areas of knowledge specified in Regulation 35 (2).

**Knowledge tests:
General
procedures and
passing grades.**

34. (1) Knowledge tests prescribed by or under these Regulations shall be conducted by the Authority or by persons designated by the Authority.

(2) An applicant for a knowledge test must have proper identification at the time of application that contains the applicant's:

- (a) Photograph;
- (b) Signature
- (c) Date of birth, which shows the applicant meets or will meet

the age requirements of these Regulations for the certificate sought before the expiration date of the applicant knowledge test report; and

- (3) The minimum passing grade for the knowledge test will be specified by the Authority.

Initial and recurrent knowledge tests.

- 35. (1) An initial aeronautical knowledge test covers the following areas of knowledge:
 - (a) Applicable regulations relating to remotely piloted aircraft system rating privileges, limitations, and flight operation;
 - (b) Airspace classification and operating requirements, obstacle clearance requirements, and flight restrictions affecting remotely piloted aircraft operation;
 - (c) Official sources of weather and effects of weather on remotely piloted aircraft performance;
 - (d) remotely piloted aircraft system loading and performance;
 - (e) Emergency procedures;
 - (f) Crew resource management;
 - (g) Radio communication procedures;
 - (h) Determining the performance of remotely piloted aircraft ;
 - (i) Physiological effects of drugs and alcohol;

- (j) Aeronautical decision-making and judgment; and
 - (k) Airport operations.
- (2) A recurrent aeronautical knowledge test covers the following areas of knowledge:
- (a) Applicable regulations relating to remotely piloted aircraft system rating privileges, limitations, and flight operation;
 - (b) Airspace classification and operating requirements, obstacle clearance requirements, and flight restrictions affecting remotely piloted aircraft operation;
 - (c) Official sources of weather;
 - (d) Emergency procedures;
 - (e) Crew resource management;
 - (f) Aeronautical decision-making and judgment; and
 - (g) Airport operations.

PART III – AUTONOMOUS AIRCRAFT

**Use of
autonomous
drones**

- 36.** (1) Use of autonomous aircraft shall be strictly limited to public (governmental) functions such as delivery of disaster or emergency supplies, search and rescue, and other government operational missions.
- (2) The government entity conducting the autonomous public unmanned aircraft operations shall be responsible for oversight of the operations,

including unmanned aircraft airworthiness and any operational requirements imposed by the government entity.

- (3) The government entity contracting for the service assumes the responsibility for oversight of the autonomous public unmanned aircraft operations.
- (4) Autonomous unmanned aircraft operations shall comply with rules of air, as applicable to all aircraft in Rwanda Airspace.
- (5) The Chairperson of the National Civil Aviation Security Committee (NCASC) shall, on a flight-by-flight basis, issue a Certificate of Authorization for a specific period of time that permits a government entity to operate an autonomous drone, in a particular area.
- (6) The NCASC shall prescribe security conditions and limitations for autonomous unmanned aircraft operations to ensure they do not jeopardize national security.

PART IV – SANCTIONS

**Administrative
fine**

- 37.** Any person who fails to comply with any of the obligations provided for by these Regulations shall be liable to an administrative fine not exceeding twenty million (20,000,000) Rwandan francs.

The Authority may also, if deemed necessary for the safety and security of civil aviation, modify, suspend or revoke any licence or certificate issued under these regulations.

Schedule 1
[Regulation 4 (4) (a)]

 Rwanda Civil Aviation Authority	Form RCAA-Form-UAS001 February 2014
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APPLICATION FOR REGISTRATION OF UNMANNED AIRCRAFT AND PERMIT TO OPERATE UNMANNED AIRCRAFT

Applications for registration will be assessed on a case-by-case basis. The average processing time is approximately 1 to 2 weeks after submission, presuming that the documents are received in good order. The processing time includes time required for assessment of submitted documents and coordination with other competent security agencies for security vetting prior to certificate issuance. Applicants are encouraged to submit their application well in advance of the date of their unmanned aircraft activity.

Type of Permit

Activity Permit¹

Operator Permit²

SECTION 1. APPLICANT INFORMATION	
1. Name of the Owner	
2. National Identity Card/Passport Number:	
3. Designation, if any (in case of an organisation/company)	
4. Residential/Company/Organisation's physical address	
5. Telephone number (mobile)	
6. Email address	

¹ An Activity Permit is granted by RCAA to an applicant for a single activity or a block of repeated activities to be carried out by an unmanned aircraft at a specific area of operation, and which are of specific operational profiles and conditions.

² An Operator Permit is granted by RCAA to an applicant if the applicant is able to ensure safe operation of unmanned aircraft, taking into account the applicant's organisational set-up, competency of the personnel especially those flying the unmanned aircraft, procedures to manage safety including the conduct of safety risk assessments, and the airworthiness of each of the aircraft. The permit is valid for up to one year.

SECTION 2. UNMANNED AIRCRAFT DETAILS

Please complete this section for each model of unmanned aircraft you plan to use. If you plan to use more than one model of unmanned aircraft, you may submit separate sheets of this section for each additional model.

1. Name of Manufacturer	
2. Brand/Model unmanned aircraft (as described by the manufacturer)	
3. Unmanned aircraft serial number	
4. Unmanned aircraft specifications	a) <i>Weight (including battery)</i> : <i>Kg</i>
	b) <i>Max speed</i> : <i>m/s</i>
	c) <i>Maximum height</i> : <i>Feet</i>
	d) <i>Max flight time</i> : <i>Minutes</i>
	e) <i>Power Source</i> :
	f) <i>Operating Frequency</i> :
5. Details (type and specifications) of equipment fitted or to be (e.g. surveillance camera, night vision cameras or Infrared and similar thermal imaging/sensors technology, etc.)	

SECTION 3. TYPE OF OPERATION (S) INTENDED TO BE CARRIED

<input type="checkbox"/> Commercial Use	<input type="checkbox"/> <i>Aerial photography/filming</i> <input type="checkbox"/> <i>Agriculture for crop monitoring/inspection/spraying</i> <input type="checkbox"/> <i>Search and rescue</i> <input type="checkbox"/> <i>Research and development</i> <input type="checkbox"/> <i>Educational/academic uses</i> <input type="checkbox"/> <i>Others</i> <i>(Specify)</i>
<input type="checkbox"/> Recreational or personal use	<i>Nature of Operations: (Provide details of activity to be undertaken such as filming, photographic, survey, surveillance, etc.)</i>

SECTION 4. DESCRIPTION OF ACTIVITY, LOCATION DATE AND TIME

(For Activity Permit applicants only)

<p>1. Describe how the unmanned aircraft would be used in the activity e.g. aerial filming/photography, aerial surveillance, aerial inspections, aerial mapping, flying display, R&D activities, test/experimentation flights</p>		
<p>2. Describe the flight profile of the unmanned aircraft (height and speed)</p>		
<p>3. Describe contingency measures in the event of: <i>(This information may be submit on separately in the operational document required in Section 5, 1 a))</i></p>	<p>a) <i>Loss of power in the unmanned aircraft:</i></p>	
	<p>b) <i>Loss of link/remote control with the unmanned aircraft:</i></p>	
	<p>c) <i>Loss of line of sight with the unmanned aircraft:</i></p>	
	<p>d) <i>Names and mobile telephone numbers of 2 designated onsite safety personnel: (Designated onsite safety personnel must remain contactable for the duration of operations)</i></p>	
<p>4. Does the operation involve the carriage or discharge of any items or substances?</p>	<p><input type="checkbox"/> <i>Yes</i></p>	<p><input type="checkbox"/> <i>No</i></p>

<p>5. If answer to item is 4 yes, please provide details of the items/substances carried and/or the means of discharge.</p>	<p>What is/are the items/substances being carried?</p>	
	<p>How is/are the items/substances being carried?</p>	
	<p>How is/are the items/substances being discharged?</p>	
<p>6. Remote pilot details:</p>		
<p>a) Name(s):</p>		
<p>b) National Identity Card/Passport Number:</p>		
<p>c) Date of Birth:</p>		
<p>d) Nationality:</p>		
<p>e) Company, if applicable:</p>		
<p>f) Model of proposed unmanned aircraft to be flown by the pilot</p>		

<p>g) Provide details of unmanned training or course(s) attended or certificate/licence/permit held, if any.</p>	
<p>h) Aviation medical clearance (<i>e.g. Class 1, 2 or 3 medical certificate</i>) held by the pilot, if any. <i>(Note: At least a class 3 medical certificate is required)</i></p>	

SECTION 5. DOCUMENTS TO BE PROVIDED FOR APPLICATION TO USE UNMANNED AIRCRAFT

1. Applicants for Activity Permit

- a) Operational document which includes:
- (i) Illustration of the whole operation processes, safety measures proposed by the operator to address site-specific circumstances such as nearby buildings/obstacles, crowds, visibility etc. at the time of operations;
 - (ii) Emergency procedures and flight checks to be followed for all envisaged operations of the unmanned aircraft;
 - (iii) A completed risk assessment of the site;
 - (iv) General procedures for incident/accident reporting to RCAA;
- b) Declaration of compliance to RURA's spectrum requirements specifying that the operation of the unmanned aircraft does not cause interference with the operation of any radio communication station or network authorized or licensed by RURA;
- c) A copy of the Manufacturer's Instructions (Operating Manual/Handbook);
- d) Supporting evidence of remote pilot training, licence and past experience as follows:
- (i) Proof of any unmanned aircraft training or course attended and details;
 - (ii) Proof of any previous or existing unmanned aircraft licence or permit issued by other authorities;
 - (iii) Proof of any similar activity previously carried out by the remote pilot.
- e) If you are operating your unmanned aircraft for hire/reward, please submit an official letter or email stating the purpose of conducting the aerial photography from the company/government agency which has engaged you.
- f) Evidence of adequate insurance coverage for the intended activity;
- g) Picture(s) of the unmanned aircraft and what is/are being carried by the aircraft if the

unmanned aircraft is self-assembled.

h) Proof of payment of the following fees:

- (i) Registration Fee: 110, 000 Rwandan Francs.
- (ii) Activity Permit Fee: 50, 000 Rwanda Francs

2. Applicants for Operator Permit

a) Unmanned aircraft operations manual (*see template in Schedule 2*)

b) A copy of the Manufacturer's Instructions (Operating Manual/Handbook);

c) The CVs of the accountable manager, flight operations manager, technical manager and pilot.

d) Declaration of compliance to RURA's spectrum requirements specifying that the operation of the unmanned aircraft does not cause interference with the operation of any radio communication station or network authorized or licensed by RURA;

e) Evidence of adequate insurance coverage for the intended operations;

f) Picture(s) clearly showing the unmanned aircraft and what is/are being carried by the aircraft if the unmanned aircraft is self-assembled.

g) Proof of payment of the following fees:

- (i) Registration Fee: 110, 000 Rwandan Francs.
- (ii) Operator Permit Fee: 200,000 Rwanda Francs.

I[name of applicant] HEREBY
DECLARE that the above particulars are true in every respect.

Date of application

Signature

For RCAA use only

Application accepted

Application rejected

Reasons for rejection:

If application is accepted:

Registration Mark:	
Registration Certificate Number:	
Permit Number:	
RCAA Inspector's name:	
Signature:	
Date:	

Schedule 2
[Regulation 25 (2)]

TEMPLATE FOR OPERATIONS MANUAL FOR UNMANNED AIRCRAFT

The following areas and details should be considered in developing an unmanned aircraft operator’s Operations Manual to provide all the information and instructions necessary to enable the operating staff to perform their duties safely and effectively. The template is not exhaustive and may be adjusted as necessary to suit the particular arrangements of an individual operator/owner.

Section	Subject	Explanation on information to be included
PART 1 INTRODUCTION		
1	Contents	<i>Brief list of the Operations Manual contents.</i>
2	Introductory Statement by the accountable manager who is responsible for the entire activity.	<i>A statement of compliance with any permission and the requirement that operational instructions contained within the manual are to be adhered to by all personnel involved in the operation.</i>
3	Definitions	<i>Include any common acronyms if necessary.</i>
4.	General information	<ul style="list-style-type: none"> - <i>The applicant’s name or company, postal address, telephone number and e-mail address.</i> - <i>Personal identity number or corporate identification number and a certificate of incorporation, depending on the type of organization.</i> - <i>Description of the organisation and management illustrated by an organisational chart and detailed instructions which specify the</i>

		<p><i>responsibilities of the flight operations manager and other operational personnel considered required for the intended activities</i></p> <ul style="list-style-type: none"> - <i>Details of any qualifications, experience or training necessary for the remote pilots or support crew for the types of unmanned aircraft and the roles employed by the owner.</i> - <i>Description of intended activity/operations.</i> - <i>Description of all unmanned aircraft owned or to be operated. This includes information on type of aircraft (model/manufacturer), dimensions and other technical specifications, type of control system.</i>
5	Area of operation	<i>Geographic scope etc. Likely operating areas - e.g. building sites, open countryside, roads etc.</i>
6	Site permission	<i>Reference to document confirming land or property owner's permission.</i>
7	Pre-notification	<p><i>If the flight is to be performed near to any aerodrome or aircraft operating site procedures for notification of the intended operation should be provided to air traffic services unit in the area prior to take-off.</i></p> <p><i>Procedures for notification to local local/security authorities of the area of the intended operation to avoid interruption or concerns from the public.</i></p>

PART 2 OPERATING PROCEDURES		
<i>Maintenance and Operation Procedures</i>		
1	Maintenance procedures	<i>Maintenance instructions and associated checklists</i>
2.	Operational Procedures	<p><i>Instructions on how preparation and flight will be carried out.</i></p> <p><i>Flight team composition: Makeup of the flight team depending on type of operation, complexity, type of unmanned aircraft etc.</i></p>
3	Operating limitations and conditions	<i>Minimum and maximum operating conditions in compliance with applicable conditions.</i>
4	Risk assessment	<i>A risk analysis adapted to the company in which all significant failure situations are analysed and are mitigated via corrective measures and instruction for abnormal situations.</i>
5	Accident prevention and Flight Safety procedures	<i>Include any reporting requirements.</i>
<i>Pre-flight planning / preparation</i>		
1	Site survey	<p><i>Visual check of operating area and identification of hazards. These should include:</i></p> <ul style="list-style-type: none"> <i>- the type of airspace and specific provisions</i> <i>- other aircraft operations (aerodromes or operating sites)</i> <i>- restrictions in the areas of operations</i> <i>- obstructions (wires, masts, buildings etc.)</i> <i>- habitation and recreational activities</i>

		- <i>weather conditions for the planned event</i>
2	Communications	<i>If special frequencies have been assigned to an unmanned aircraft radio communication, procedures to scan for interfering frequencies before a flight is carried out.</i>
3	Selection of operating area and alternate	<i>Size, shape, surrounds, surface, slope.</i>
4	Crew briefing	<i>To cover the task, responsibilities, duties, emergencies etc.</i>
5	Cordon procedure	<i>Adherence of separation criteria.</i>
6	Pre-flight checks on unmanned aircraft and equipment	<i>Instructions and checklists for preparation of flight assignments</i>
7	Communications	<i>Local and with adjacent air operations if appropriate.</i>
8	Weather checks	<i>Limitations and operating considerations.</i>
9	Refuelling	<i>Charging of batteries.</i>
10	Loading of equipment	<i>Security.</i>
<i>Flight procedures</i>		
1	Start	
2	Take-off	
3	In flight	
4	Landing	
5	Shutdown	
<i>Emergency procedures</i>		
4.1	Appropriate to the unmanned aircraft and control system	<i>Should consider all those events that might cause the flight of the unmanned aircraft to fail or be terminated.</i>

4.2	Fire	<i>Risk and preventative measures should be considered relevant to the type of unmanned aircraft power sources and fuel.</i>
4.3	Accidents	<i>Reporting, responses etc.</i>
PART 3 TRAINING		
	Details of the operator training programme	<i>Training and checking requirements for pilots and support crew as determined by the operator to cover initial, refresher and conversion syllabi.</i>
PART 4 APPENDICES		
	Other documents	<i>As considered necessary.</i>

Dr NZAHABWANIMANA Alexis
Minister of State in charge of Transport

Seen and sealed with the seal of the Republic:

BUSINGYE Johnston
Minister of Justice/Attorney General