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TANZANIA CIVIL AVIATION AUTHORITY
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The following circular is promulgated for information, guidance and necessary action

Hamza S. Johari
Director General

UNMANNED AIRCRAFT SYSTEMS

1. GENERAL

- 1.1 This circular is issued for information, guidance and compliance by all concerned while operating in Tanzania. RPAS Operators flying in Tanzania must strictly adhere to minimum requirements set herein and comply with the rules and regulations in the Tanzania Civil Aviation Regulations (TCAR's).

2. OBJECTIVE

- 2.1 The objective of this Aeronautical Information Circular (AIC) is to detail Tanzania Civil Aviation Authority limitations and conditions for the operation of remotely piloted aircraft in Tanzania in accordance with the provisions of International Civil Aviation Organization (ICAO Circular 328 AN/190).

3. POLICY

- 3.1 ICAO Circular 328 AN/190 states that an aircraft capable of being operated without a pilot shall not be so operated except with the authorization in writing of the Authority and in accordance with such conditions as may be specified in the authorization.
- 3.2 In order to facilitate safe operation of these aircraft, certain procedures are to be followed by the prospective operators.
- 3.3 Operations for hire and reward such as banner-towing, advertising, photography, aerial survey, marine survey, agriculture survey, fish spotting, etc., which can be conducted in properly certificated and operated Unmanned Aircraft are not permitted without written permission from the Authority.
- 3.4 Normal airworthiness and operations standards do not apply to **privately operated** Unmanned Aircrafts below 7 kilograms, but must register their drones with the Authority using form TCAA/FRM/SR/OPS - 01 which is attached to this AIC and obtain a written authorization prior to any flights. This includes recreational flying for Unmanned Aircraft below 7 kilograms.
- 3.5 The principle employed by the Authority in granting approvals or specifying requirements is that Unmanned Aircraft operations must not present any undue hazard to other airspace users, or to persons or property on the ground. Any offence against the later, including infringement of personal privacy is an offence of strict liability.

- 3.6 All Unmanned Aircraft used commercially must meet internationally recognized standards, and the persons or organizations that construct, maintain, and operate them must be qualified or certificated in an acceptable manner.
- 3.7 The Authority will become involved in the certification of Unmanned Aircraft or the persons who operate them, but will accept such certification from internationally recognized bodies set up to perform these functions. The following bodies are considered acceptable and any other internationally recognized body acceptable to the Authority as an equivalent: -
- i. **The British Model Flying Association**
 - ii. **Model Flying New Zealand**
 - iii. **Model Aeronautical Association of Australia**
 - iv. **Model Aeronautics Association of Canada**
 - v. **Federal Aviation Administration FAA (UAS Division Certification)**
 - vi. **Civil Aviation Safety Authority (CASA)**
 - vii. **New Zealand Civil Aviation Authority (NZ CAA)**
 - viii. **United Kingdom Civil Aviation Authority (UK CAA)**
 - ix. **European Aviation Safety Agency (EASA)**
 - x. **Civil Aviation Authority South Africa (SACAA)**

3.8 Accident Reporting

3.8.1 Summary:

To ensure proper oversight of Unmanned Aircraft operations, any Unmanned Aircraft operation that results in

- i. Any injury to a person; or
- ii. Damage to property other than the Unmanned Aircraft

Unmanned Aircraft operators are required to report to Tanzania Civil Aviation Authority (TCAA) and Tanzania Aircraft Investigation Branch (TAAIB) at the following physical address and contact details: -

**Chief Inspector of Aircraft Accidents:
Ministry of Works, Transport and Communications
Tanzania Aircraft Accident Investigation Branch,
Tancot House,
2 Pamba Street,
11476 Dar Es Salaam
Tel: +255 222137650 – 6,
Fax: +255 222112751 / +255 222136462
Cell: +255 754 783 744, +255 784 737 262
Website: www.mot.go.tz
Email: info@mot.go.tz; permsec@mot.go.tz**

Reports shall be dispatched within 48 hours of the occurrence coming to the knowledge of the person making the report. Should this report be incomplete, a further report containing this information must be made within 48 hours of the information becoming available.

3.8.2 Use:

The above requirements would be used by the TCAA to ensure proper oversight of Unmanned Aircraft operations. A report of an accident that resulted in an injury to a person or property damage may serve to initiate an TAAIB and TCAA investigation into whether TCAA regulations were violated.

4.0 DEFINITIONS

4.1 For the purposes of this AIC, Unmanned Aircraft has the equivalent meaning to Remotely Piloted Aircraft Systems (RPAS).

4.2 **"Unmanned Aircraft"** are classified in THREE weight divisions: -

- i. Light: MTOW less than 7KG
- ii. Medium: MTOW 7KG - 150KG
- iii. Large: MTOW greater than 150KG

and TWO operating capabilities:

- i. Visual Line of Sight (VLOS)
- ii. Beyond Visual Line of Sight (BVLOS)

4.3 **"Visual Meteorological Conditions"** means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling equal to or better than specified minima. (ICAO Annex 2: Rules of the Air). Essentially, they are:

- i. When above 3,000FT or 1,000FT above terrain, whichever is higher:
 - a) 1,500M horizontally and 1,000FT vertically from cloud;
 - b) Flight visibility 5KM below 10,000FT and 8KM above 10,000FT.
- ii. When below 3,000FT or 1,000FT above terrain, whichever is higher:
 - a) Clear of cloud and in sight of the surface;
 - b) Flight visibility of 5KM.

5.0 AIRWORTHINESS STANDARDS (MEDIUM AND LARGE RPAS ONLY)

5.1 Unmanned Aircraft will not be accepted onto the Tanzania register unless they have been designed, constructed, and tested to acceptable design standards. The following standards are considered acceptable, EASA-E.Y013-01 - Airworthiness Certification of Unmanned Aircraft Systems (UAS) and any other international standard acceptable to the Authority.

5.2 The Unmanned Aircraft type mentioned in 5.1 must also have a proven acceptable safety record.

5.3 Previously operated Unmanned Aircraft will not be accepted unless they have been owned, since new, by the person who is importing them. In this case, a change of ownership may not be accepted until the aircraft has been in Tanzania for twelve months unless approved otherwise by the Authority.

5.4 Construction and Certification of any Unmanned Aircraft in this chapter must be under the auspices of one of the organizations specified in paragraph 3.7, and in compliance with the appropriate requirements specified in paragraph 5.1.

5.5 Continuing maintenance of the aircraft must be in compliance with the instructions in the aircraft flight manual.

5.6 When the Authority is satisfied that the above requirements have been met, the Unmanned Aircraft will be issued with a permit to operate, endorsed with the appropriate limitations.

5.7 Renewal of permits to fly will normally be for a period of TWELVE (12) months.

6.0 APPLICATION FOR THE ISSUE OF AUTHORIZATIONS

- 6.1 An applicant for the issue of a Permit to fly a medium to large unmanned aircraft must submit the following:
- a) An approval to Operate from the Ministry of Defense.
 - b) Evidence that the aircraft type has been previously certified to an acceptable design code.
 - c) A report from a competent person demonstrating that the type has a safety record in service, acceptable to the Authority for its intended use.
 - d) A report from a competent person certifying that the actual aircraft conforms to the type to which the established safety record is related.
 - e) In the case of used unmanned aircraft, complete records to demonstrate that the aircraft has been maintained and overhauled as required.
 - f) An unmanned aircraft flight manual appropriate to the original type certification.
 - g) Evidence to satisfy the Authority of the competence of the person nominated to carry out test flights. This must be agreed by the Authority prior to test flights being conducted.
 - h) Satisfactory ground and flight test reports to a format previously agreed by the Authority.
 - i) A maintenance inspection programme. This must include details of any special techniques specified by the manufacturer, and details of each mandatory replacement or inspection interval.
 - j) Maintenance instructions regarding disassembly, transport, storage, and reassembly to airworthy condition where major components are designed to be removed for this purpose.
 - k) Evidence to satisfy the Authority of the competence of the person nominated to maintain the aircraft.
 - l) A Company Operations Manual.
 - m) Liability and Third Party Insurance Cover from a recognized Insurance broker that has dealt with Unmanned Aircraft Operations Insurance or its equivalent.
- 6.2 Applicants for the renewal of a permit to fly must submit the evidence specified under paragraphs 6.1 (e) and (h).
- 6.3 An applicant for the issue of a Permit to fly privately a Light Unmanned Aircraft (including recreational flying) must submit the following to the Authority:
- a) A completed TCAA RPAS Application Form TCAA/FRM/SR/OPS - 01.
 - b) A cover letter to outline the purpose for the Unmanned Aircraft.
 - c) An Unmanned Aircraft flight manual appropriate to the original type certification.
 - d) An insurance cover for any foreseeable liability issues.

- 6.4 An applicant for the issue of a Permit to fly commercially a Light Unmanned Aircraft must submit the following to the Authority:
- a) An approval to Operate from the Ministry of Defense.
 - b) A completed TCAA RPAS Application Form TCAA/FRM/SR/OPS - 01.
 - c) A cover letter to outline the purpose for the Unmanned Aircraft.
 - d) An Unmanned Aircraft flight manual appropriate to the original type certification.
 - e) A Company Operations Manual.
 - f) Liability and Third Party Insurance Cover from a recognized Insurance broker that has dealt with Unmanned Aircraft Operations Insurance or its equivalent.

7.0 CONDITIONS OF OPERATIONS

- 7.1 Unmanned Aircraft must be operated in compliance with any conditions of operation imposed on the permit to fly.
- 7.2 Unmanned Aircraft operations shall take place by day and in visual meteorological conditions with the device in visual sight at all times.
- 7.3 Except with the permission of the Authority, Unmanned Aircraft must not be operated above 400 feet AGL within 5 kilometers from any International Airport or 3 kilometers from a domestic aerodrome.
- 7.4 Unmanned Aircraft may not be operated over any city, town, or populous area including a crowd of people without prior permission from the Authority and any relevant local government body and that an acceptable safety case has been presented.
- 7.5 Unmanned Aircraft may not be operated in any controlled airspace, flying training area, or low flying area, unless the operator has prior written permission from the Authority and the Air Traffic Control unit.

8.0 PILOT QUALIFICATIONS

- 8.1 A Light Unmanned Aircraft may only be flown in Tanzania by:
- a) The holder of the appropriate qualification issued by one of the organizations specified in paragraph 3.7, who is operating in compliance with any limitations or conditions attached to that qualification, or
 - b) A person who is undergoing training at a RPAS Company operating under the authority of one of the organizations specified in paragraph 3.7, and who is operating in compliance with any rules, limitations, or conditions required by that organization, or the Authority, or
- 8.2 A Medium Unmanned Aircraft may be flown in Tanzania by:
- a) The holder of the appropriate qualification issued by one of the organizations specified in paragraph 3.7, who is operating in compliance with any limitations or conditions attached to that qualification, and acceptable to the Authority.
 - b) Holds or has previously held at least a Private Pilot's License,
 - c) Hold a current Instrument Rating (Single Engine or Multi Engine)

- 8.3 A Large Unmanned Aircraft may be flown in Tanzania by:
- a) The holder of the appropriate qualification issued by one of the organizations specified in paragraph 3.7, who is operating in compliance with any limitations or conditions attached to that qualification, and
 - b) Hold a current Commercial Pilot's License,
 - c) Hold a current Instrument Rating (Single Engine or Multi Engine).

9.0 AUTONOMOUS UNMANNED AIRCRAFT

- 9.1 Use of autonomous unmanned 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.
- 9.2 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.
- 9.3 The government entity contracting for the service assumes the responsibility for oversight of the autonomous public unmanned aircraft operations.
- 9.4 Autonomous unmanned aircraft operations shall comply with rules of the air, as applicable to all aircraft in Tanzanian Airspace.
- 9.5 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 unmanned aircraft, in a particular area.
- 9.6 The NCASC shall prescribe security conditions and limitations for autonomous unmanned aircraft operations to ensure they do not jeopardize national security

	<p>TANZANIA CIVIL AVIATION AUTHORITY</p> <p>FLIGHT OPERATIONS</p>	<p>Revision: 0</p>
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Application for Registration/Operation of Unmanned Aircraft (UA)

1. Name of the Owner	
2. Nationality	
3. Physical Address	
4. Telephone (Mobile)	
5. Email	
6. Type of remotely piloted aircraft (as described by the manufacturer)	
7. Name of Manufacturer	
8. Remotely piloted aircraft Manufacturer's Serial Number	
9. Details of Equipment Fitted or to be Carried (e.g. surveillance camera, night vision cameras or Infrared and similar thermal imaging/sensors technology, etc.)	
10. Details of the types of operation(s) intended to be carried out by the Operator/owner:	
(a) Commercial Use:	
<input type="checkbox"/> Aerial photography/Filming	
<input type="checkbox"/> Agriculture for crop monitoring/inspection	
<input type="checkbox"/> Search and rescue	
<input type="checkbox"/> Research and development	
<input type="checkbox"/> Educational/academic uses	
<input type="checkbox"/> Others (Specify).....	

(b) Recreational Use (Personal)

11 Nature of Operations: (Provide details of activity to be undertaken such as filming, photographic, survey, surveillance, etc.)

.....

12. Area of Operations: (Provide details of geographical areas where activity is planned to take place)

.....

I *[name of applicant]* HEREBY DECLARE that the above particulars are true in every respect and I apply for the Remotely Piloted Aircraft to be registered in Tanzania.

_____ Date of Application

_____ Signature

For CAA use			
Registration Mark		Certificate Number	