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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

MH/T 1069-2018

**Technical specifications for flight operations of unmanned
aircraft systems
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was proposed by the Transportation Department of the Civil Aviation Administration of China.

This standard is under the jurisdiction of the China Academy of Civil Aviation Science and Technology.

Drafting organization of this standard. The Second Research Institute of Civil Aviation Administration of China.

1 Scope

This standard specifies the basic requirements, operation organization and implementation, and information transmission when using civil unmanned aircraft systems to carry out operational flights.

Transmission and data processing technical requirements, maintenance and maintenance, abnormal handling measures and other requirements.

This standard is applicable to civil unmanned aircraft with an empty aircraft weight of 116 kg (inclusive) and a total take-off weight of 150 kg (inclusive).

(Hereinafter referred to as drones) or plant protection drones perform operational flight operations for non-gaming or entertainment purposes.

2 Terms and definitions

The following terms and definitions apply to this document.

Unmanned aerial vehicle Aircraft managed by a control station (including remote control or autonomous flight).

Note: Also called remotely piloted aircraft or drone.

Unmanned aerial vehicle system Consists of drones, related control stations, required command and control data links, and any other components required by the approved model design system.

Note: Also known as remotely piloted aircraft system or unmanned aerial vehicle system.

UAVs pilot

Personnel who have essential responsibilities for the operation of the UAV and operate the UAV at the right time during the flight.

UAVs pilot in command the pilot who is responsible for the operation and safety of the entire UAV system during the system operation time.

Fixed-wing UAV

A UAV that is heavier than air flying in the atmosphere by generating thrust or pulling force by a power unit, and generating lift by the fixed wings of the fuselage.

Rotor UAV

An unmanned aerial vehicle that obtains lift by the reaction of one or more rotors with the air.

Unmanned helicopter

Controlled by remote control equipment or self-provided program control device, powered by the rotor as the main source of lift and propulsion, can take off and land vertically, an unmanned aircraft with a mission load that is heavier than air.

Multi-rotor UAV

An unmanned aerial vehicle that obtains lift from the reaction of three or more rotors and the air relative to the air.

Note: Commonly used are four-rotor UAV, six-rotor UAV, and eight-rotor UAV.

Ground control station Used to realize mission planning, data link, flight control, load control, trajectory display, parameter display and load information display, and Equipment for recording and distribution functions.

2.10

Data link system

Realize the sum of data sending and receiving and command transmission equipment or devices between the ground control station and the drone.

2.11

Command and control data link Data link between UAV and ground control station for flight management purposes.

2.12

Fence of UAVs

In order to ensure the safety of the region, the regional boundary is drawn in the corresponding geographic area with an electronic information model, in the UAV system or UAV cloud system in the system, the software and hardware systems that use electronic information models to prevent drones from flying in or out of specific areas.

2.13

UAV cloud system

Used to provide navigation services, weather services, etc. to UAV users, and to update UAV operation data (including position, altitude, speed, etc.) UAV operation dynamic database system for real-time monitoring.

2.14

Take-off and landing field it is used for the take-off, landing and logistics support of drones.

2.15

Navigation data

The flight speed, flight attitude, position, flight distance and flight time, turning radius and turning time, deviation of the drone during flight activities Flow and ground speed etc.

2.16

Visual line of sight operations the operation of the UAV within the direct visual contact range of the driver or observer, the range is that the visual range radius is not more than 500 m, the relative height of man and machine is not more than 120 m.

2.17

Beyond visual line of sight operations the operation of the UAV outside the line of sight.

2.18

Mission payload

A device or device that is mounted on an unmanned aerial vehicle for the purpose of completing a specific mission function of the operational flight.

3.1 Personnel

3.1.1

Operators generally include UAV system drivers and operation assistants.

3.1.2

Operators should be familiar with drone operation methods and procedures, and master the relevant knowledge and general knowledge of drone operation, maintenance and safety production Emergency operation procedures and operation training of corresponding models.

3.1.3

Operators should be in good health and mental state, and the intake limits of alcohol and drugs should comply with the regulations of the civil aviation authority.

3.1.4

The pilot of the UAV system shall have the qualification required by the type and level of the UAV piloted.

3.1.5

The pilot of the UAV system should operate the UAV in a safe manner so as not to pose a threat to the person or property of others.

3.1.6

The captain of the UAV system, as the first person responsible for the safe operation of the UAV, should be familiar with the available information related to the flight. These letters Information should include but not limited to the following.

- a) The geographical location and topography of the flight area;
- b) Weather conditions during the expected flight duration in the flight area;
- c) The conditions of the airport and nearby airspace in the flight area;
- d) Flight performance and operation methods;
- e) The location of the emergency landing;
- f) Maintenance and inspection records;