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

MH/T 1075-2020

**Safety regulations for aircraft rain enhancement operations
(English Translation)**

Issued on: July 20, 2020

Implemented on: October 1, 2020

Issued by: Civil Aviation Administration of China

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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 organizations of this standard. The Second Research Institute of Civil Aviation Administration of China, Beijing Weather Modification Office, China Flying Dragon General Aviation Limited company.

1 Scope

This standard specifies the basic requirements, pre-preparation, direct preparation, operation implementation, post-operation treatment and emergency response for aircraft rain enhancement operations Claim.

This standard is applicable to aircraft rain-enhancing operation flights carried out by civil aircraft, and other artificial weather-influencing operation flights can refer to this standard carried out.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 33679 Technical conditions for storage of combustion agents and refrigerants for artificial weather modification QX/T 151 Terminology for weather modification operations

3 Terms and definitions

QX/T 151 and the following terms and definitions apply to this document.

Aircraft rain enhancement operations Use operating aircraft and airborne operating equipment to sow catalysts in the clouds to promote precipitation flying activities.

Airborne operating equipment Equipment for carrying out tasks such as air-to-ground communication, atmospheric detection, and catalyst dispersal during aircraft rain enhancement operations.

Air-to-ground communication system the equipment used to realize voice calls and data transmission between the operators on the aircraft and the ground commanders.

Atmospheric detection equipment the equipment used to detect meteorological elements is installed on the operating aircraft.

Catalyst spreading equipment the equipment installed on the operating aircraft to spread the catalyst into the cloud.

Work materials

A catalytic material that is sowed into the cloud to change the physical development process of the cloud and achieve the purpose of artificially affecting the weather.

Macro recorder

Personnel responsible for recording flight, operation and meteorological observation information during aircraft rain enhancement operations.

4.1 Operator

Enterprises that carry out aircraft rain enhancement operations should.

- a) Obtain a current valid general aviation business license, and the business scope includes artificial precipitation enhancement projects;
- b) Obtain the current valid commercial non-transport operator operation certificate and operation specifications, and the operation types include general commercial flights;

- c) Possess sufficient ability to bear the liability for compensation, insuring compulsory insurance such as third party liability insurance on the ground in accordance with regulations, and it is advisable to insure aircraft fuselage Supplementary insurance such as insurance and aircraft personnel insurance;
- d) Develop an operation manual for aircraft rain enhancement operations and update the manual in time according to actual conditions;
- e) Sign a valid written contract with the unit that organizes the implementation of aircraft rain enhancement operations;
- f) Submit aircraft rain enhancement operation information and related materials to the civil aviation authority as required;
- g) Pass the assessment in the safety assurance financial assessment of general aviation enterprises organized by the civil aviation authority.

4.2 Operating Airport

4.2.1

The operating airport shall include one take-off and landing airport and at least one alternate airport.

4.2.2

The clearance conditions, runway specifications, and flight support conditions of the operating airport should meet the operating requirements of the operating aircraft.

4.2.3

The supply of fuel, power, oxygen and nitrogen at the operating airport meets the operational assurance requirements of the operating task.

4.2.4

The take-off and landing airport should have the ability to provide meteorological information for the site and route, and to analyze and predict the meteorological information.

4.2.5

The operating airport should have precision approach and night flight support equipment.

4.3 Operating aircraft

4.3.1

The operating aircraft should obtain three certificates (nationality registration certificate, airworthiness certificate and airborne radio station license) issued by the civil aviation authority;

When renting a foreign aircraft for operations, the three certificates should be approved by the Chinese civil aviation authority.

4.3.2

Aircraft equipped with airborne operation equipment shall obtain the supplementary type certificate and modification design approval issued by the civil aviation authority of China. Airworthiness certificate such as the certificate, supplementary type approval certificate, etc.

4.3.3

The operating aircraft should pass the annual airworthiness inspection carried out by the civil aviation authority and be in an airworthy state.

4.3.4

Aircraft that undertake annual, large-scale, and cross-regional operations should have multiple engines and have pressurized cabins.

4.3.5

The operating aircraft should have certain deicing (anti-icing) capabilities, be easy to modify, and be equipped with weather radar. Performance of commonly used domestic aircraft See Appendix A for parameters.

4.4 Airborne operating equipment

4.4.1

The catalyst spreading equipment shall pass the inspection and acceptance of the competent meteorological department of the State Council or its designated unit.

4.4.2

The operating aircraft should be equipped with air-to-ground communication systems and catalyst spreading equipment that meet the requirements of the operating task.

4.4.3

Operation aircraft should be equipped with atmospheric detection equipment and operation monitoring devices.

4.4.4

Airborne operating equipment in use should be regularly tested and maintained.

4.4.5

Do not use airborne operating equipment that has reached the expiration date or failed the safety inspection.