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

MH/T 6012-2015

Replacing MH/T 6012-1999

**Aviation obstruction lights
(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 replaces MH/T 6012-1999 "Aviation Obstruction Lights". Compared with MH/T 6012-1999, the main technical changes are as follows.

-Modified the scope of application of obstruction lights (see Chapter 1, Chapter 1 of the 1999 edition);

-Revised the normative references (see Chapter 2, Chapter 2 of the 1999 edition);

-Added "Terms and Definitions" (see Chapter 3);

-Modified the classification of obstruction lights (see Chapter 4, Chapter 3 of the 1999 edition);

--- Added the technical requirements for Type A, Type C, Type D low intensity and Type C medium intensity obstruction lights (see Chapter 4, 5.3.1.2);

--- Increase the requirements for creepage distance and electrical clearance (see 5.2.1);

--- Added requirements for protection against electric shock (see 5.2.2);

--- Added detailed requirements for light color (see 5.2.5);

--- Increase the installation and adjustment requirements of Type A and Type B high

intensity obstruction lights (see 5.2.6);

--Modified the power supply voltage working range of AC power supply obstruction lights (see 5.2.8, 1999 edition 4.2.5);

--- Added relevant requirements for radiated and conducted emissions (see 5.2.10);

--Relevant requirements for the life of the light source are modified (see 5.2.15, 1999 edition 4.3.3);

-Modified the position of the vertical center of the beam of the A-type and B-type low-intensity obstruction lights (see 5.3.1.2, 1999 edition 4.2.10.1);

-Modified the beam distribution requirements of medium intensity and high intensity obstruction lights (see 5.3.1.2, 1999 edition 4.2.10);

-Modified the flash duration of Type A and Type B medium intensity and high intensity obstacle lights (see 5.3.2, 4.2.10 of the 1999 edition);

-Added the chromaticity coordinates of the surface chromaticity (see 5.3.5);

-Modified some inspection and test methods (see Chapter 6, Chapter 5 of the 1999 edition);

-Modified inspection rules (see Chapter 7, Chapter 6 of the 1999 edition);

-Modified the nameplate, manual, packaging, transportation and storage requirements (see Chapter 8, Chapter 7 and Chapter 8 of the 1999 edition).

This standard was proposed and interpreted by the Airport Department of the Civil Aviation Administration of China.

This standard was approved by the Aircraft Airworthiness Certification 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. China Academy of Civil Aviation Science and Technology, National Optoelectronic Information Product Quality Supervision and Inspection Center, Shanghai Nanhua Machinery Electric Co., Ltd.

1 Scope

This standard specifies the classification, technical requirements, test and inspection methods, inspection rules, nameplates, aviation obstruction lights (hereinafter referred to as obstruction lights) Packaging, transportation, storage and other requirements.

This standard applies to obstruction lights installed on obstacles such as fixed buildings, structures, and moving objects in airports.

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 191 Packaging, Storage and Transportation Graphic Mark GB/T 2423.1 Environmental testing of electrical and electronic products Part 1: Test method Test A. Low temperature GB/T 2423.2 Environmental testing of electrical and electronic products Part 2: Test method Test B. High temperature GB/T 2423.3 Environmental testing of electrical and electronic products Part 3: Test method Test B. Damp heat GB/T 2423.17 Environmental testing of electric and electronic products Part 17: Test method Test Ka. Salt spray GB/T 2423.24 Environmental Test Part 24: Test Method Test Sa. Simulate solar radiation on the ground and its test guide GB 4208 Shell protection grade (IP code) GB 7000.1 General safety requirements and experiments for lamps GB/T 7256-2015 General requirements for civil airport lamps GB 9254 Information Technology Equipment Radio Disturbance Limits and Measurement Methods GB/T 9969 General Rules for the Use of Industrial Products GB/T 14436 General Rules of Guarantee Documents for Industrial Products GB/T 17626.5 Electromagnetic compatibility test and measurement technology surge (impact) immunity test MH 5001 Civil Airport Flight Area Technical Standard

3 Terms and definitions

The following terms and definitions apply to this document.

Beam spread

On the specified plane, the light intensity is equal to the angle between the two directions at 50% of the specified minimum peak light intensity on the plane.

Vertical aiming angle the angle between the exit direction of the maximum light intensity and the horizontal plane.

Steady-burning(fixed) light A lamp with constant intensity when viewed at a fixed point.

Effective intensity

The effective light intensity of the flash lamp is equivalent to the light intensity of a constant light-emitting lamp of the same color that produces the same visual range under the same observation conditions.

4 Categories

The classification of obstruction lights is shown in Table 1.

5.1 Environmental requirements

Obstruction lights should be able to operate for a long time in the following environments.

- a) Working temperature. -40 °C~55 °C;
- b) Relative humidity. 0% to 95%;
- c) Wind force. not more than 240 km/h;
- d) Rain. Exposure to rain in any wind direction;
- e) Salt spray. exposure to salt spray environment;
- f) Irradiation. Exposure to solar radiation.

5.2.1 Creepage distance and electrical clearance

The creepage distance and electrical clearance of the obstruction light should meet the relevant requirements of GB 7000.1.

5.2.2 Protection against electric shock

The electric shock protection of obstruction lights shall meet the relevant requirements of GB 7000.1.

5.2.3 Structure

The structure of the obstruction light should be sturdy and light as possible, and it should be able to operate for a long time under the specified environmental requirements, and be easy to install and replace the light source.

All external detachable parts of the luminaire should have anti-falling measures, such as wiring cover, lampshade that needs to be replaced on site, and external screws.

The protection level of lamps and enclosures containing electronic circuit boxes should not be lower than IP55.

5.2.4 Lampshade

The color of the lampshade should be uniform. The glass lampshade shall be subjected to the thermal shock test in accordance with the requirements of 10.2.3 of GB/T 7256-2015. After the test, the lamp shall be no cracks or cracks. If the lampshade is a plastic cover, it should be resistant to cracks and cracks. Color changes and materials caused by exposure to ultraviolet rays or ozone Aging should not affect its performance requirements.