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

GB/T 44911-2024

**Aircraft equipment - Environmental and operating conditions
for airborne equipment - Humidity, temperature and pressure
tests**

航空器 机载设备环境和操作条件 湿度、温度和大气压力试验

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is modified to adopt ISO 9662:1994 "Environmental and operating conditions for humidity, temperature and atmospheric pressure test equipment on aircraft" Test.

This document has made the following structural adjustments compared to ISO 9662:1994.

--- Added a chapter on "Terms and Definitions";

--- Chapter 4 corresponds to Chapter 3 of ISO 9662:1994;

--- Chapter 5 corresponds to Chapter 4 of ISO 9662:1994, with the addition of 5.1 "General requirements", and 5.2 to 5.4 correspond to ISO 9662.

4.1~4.3 in 1994;

--- Chapter 6 corresponds to Chapter 5 of ISO 9662:1994, of which 6.1 to 6.3 correspond to 5.1 to 5.3 of ISO 9662:1994, and the addition Added 6.3.1 "General principles", 6.3.2~6.3.4 correspond to 5.3.1~5.3.3 in ISO 9662:1994;

--- Delete Chapter 6 of ISO 9662:1994.

The technical differences between this document and ISO 9662:1994 and their reasons are as follows.

--- The content of this document has been refined (see Chapter 1), as the original content

was too general;

--- Added "General Requirements" (see 5.1), moved the original "Suspension Section" content to "General Requirements", and added standardized test methods the necessary factors for the application should be described in order to better meet the requirements of this chapter and GB/T 1.1-2020;

--- Added "General Requirements" (see 6.3.1), and moved the content of the original "Suspension Section" to "General Principles" to comply with GB/T 1.1-2020 related requirements;

--- Change "shall" in Figure 1 to "need" (see Figure 1) to comply with the relevant requirements of GB/T 1.1-2020;

--- Deleted the content related to "time sufficient for functional performance test" in 5.1.6 of ISO 9662:1994, which has no implementation Line of conduct;

--- Deleted Chapter 6 of ISO 9662:1994. This part is for explanation and has no implementation feasibility.

1 Scope

This document specifies the conventions for expressing altitude and atmospheric pressure, and the requirements and procedures for testing humidity, temperature and atmospheric pressure of airborne equipment.

This document applies to environmental and operational testing of aircraft onboard equipment.

This document is not applicable to defect inspection of aircraft onboard equipment and local icing simulation tests in high humidity environments.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Conventions for expressing altitude and atmospheric pressure

In this document, the expression of altitude and atmospheric pressure follows the conventions of the International Civil Aviation Organization (ICAO).

5.1 General requirements

This document specifies three different tests. The corresponding equipment specification should state which test is to be used.

When the test is carried out, test No. 2 should be used.

Frost, melting, moisture condensation and moisture intrusion are necessary factors for this test.

5.2 Test No. 1

Suitable for airborne equipment in closed or partially closed structures where performance will be directly affected by moisture condensation.

5.3 Test No. 2

Applicable to airborne equipment with closed or partially sealed structures, where the performance will be affected only by the accumulation of moisture condensation during multiple flight descents.

equipment.