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

GB/T 14410.11-2026

**Flight dynamics - Concepts, quantities and symbols - Part 11:
Control system**

飞行力学 概念、量和符号 第11部分：操纵/控制系统
(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 11 of GB/T 14410, "Concepts, Quantities and Symbols in Flight Mechanics". GB/T 14410 has published the following...

part.

- Part 1: Coordinate System and Motion State Variables;
- Part 2: Forces, Moments, Their Coefficients and Derivatives;
- Part 3: Aircraft Stability and Handling;
- Part 4: Flight Performance;
- Part 5: Flight Measurements;
- Part 6: Aircraft Geometry;
- Part 7: Flight Points and Flight Envelopes;
- Part 8: Aircraft Dynamics;

---Part 9: Atmospheric Disturbance Models;

---Part 11: Manipulation/Control Systems this document is modified to adopt ISO 1151-11:2023 "Terminology for flight mechanics - Part 11: Control systems".

This document has undergone the following structural adjustments compared to ISO 1151-11:2023.

---Added 3.4;

---Added a "Chinese Pinyin Index".

This document differs significantly from ISO 1151-11:2023. The relevant clauses are indicated in the margins using vertical markers.

Straight lines (|) are marked. A summary of these technical differences and their reasons can be found in Appendix A.

The following editorial changes have been made to this document.

---To harmonize with existing standards, the standard title has been changed to "Flight Dynamics Concepts, Quantities and Symbols Part 11: Maneuvering/Control" system";

---Added notes to terms such as "operating system/control system" (see 3.1.2);

---Change the explanatory content in the definition to notes (see 3.2.4, 3.3.12).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Aircraft Standardization Technical Committee (SAC/TC435).

Introduction

GB/T 14410 defines the concepts, quantities and symbols related to flight mechanics, as well as related terms, definitions and explanations, and is proposed to consist of the following 11 parts.

---Part 1: Coordinate System and Motion State Variables. The purpose is to define the coordinate system and basic motion state variables that describe the aircraft's motion.

The terminology and symbols for state variables are applicable to fixed-wing aircraft; other aircraft may refer to them for further information.

---Part 2: Forces, Moments, Their Coefficients, and Derivatives. The purpose is to define the forces, moments, their coefficients, and derivatives that describe the motion of an aircraft.

The terms and symbols used are applicable to fixed-wing aircraft; other aircraft may refer to them for their own purposes.

---Part 3: Aircraft Stability and Handling. The purpose is to define the study of aircraft stability and handling (excluding dynamic characteristics).

The terminology and symbols used apply to fixed-wing aircraft; other aircraft may refer to them for their own purposes.

---Part 4: Flight Performance. The purpose is to define the terms and symbols used to describe the flight performance of an aircraft, applicable to fixed-wing aircraft.

His aircraft are used as a reference.

---Part 5: Flight Measurement. The purpose is to define the terminology and symbols used in flight measurement, applicable to fixed-wing aircraft.

His aircraft are used as a reference.

---Part 6: Aircraft Geometry. The purpose is to define the most fundamental geometrical characteristics of an aircraft, relevant to flight dynamics.

The terms and symbols used, which do not fully describe the shape of an aircraft in detail, are applicable to fixed-wing aircraft, and others.

For use by aircraft.

---Part 7: Flight Point and Flight Envelope. The purpose is to define the flight points and flight envelopes used in flight mechanics studies to determine the flight status of an aircraft.

The terms and symbols used are applicable to fixed-wing aircraft; other aircraft may refer to them for their own purposes.

---Part 8: Aircraft Dynamic Characteristics. The purpose is to define the concepts, quantities, and symbols related to aircraft dynamic characteristics, applicable to fixed-roof aircraft.

Winged aircraft; other aircraft may refer to this for application.

---Part 9: Atmospheric Disturbance Models. The purpose is to define the concepts, quantities, and symbols of atmospheric disturbance models that affect aircraft flight characteristics.

This number applies to fixed-wing aircraft; other aircraft may refer to it for further information.

---Part 11: Control Systems. The purpose is to define the flight control systems of aircraft (fixed-wing aircraft and helicopters).

In the field, basic concepts, terms, and definitions applied to science, engineering, and manufacturing.

Note: This document is a modification of ISO 1151-11:2023.As of now, Part 10 of the ISO 1151

series of international standards has not been published; the relevant content is currently unavailable.

vacancy.

Flight mechanics concepts, quantities and symbols Part 11: Operating/Control Systems

1 Scope

This document defines the basic concepts, fundamental components, and operating procedures in the field of aircraft (fixed-wing aircraft and helicopter) flight control/control systems.

Classification of longitudinal/control systems, terminology and definitions of flight control technology.

This document applies to the research, engineering design, and manufacturing of flight control/control systems for aircraft (fixed-wing aircraft and helicopters).

2 Normative references

This document has no normative references.

3.1 Basic Concepts

3.1.1

system

A combination of interconnected parts, components and elements that perform one or more specific functions.

3.1.2

control system

control system

Mechanical or electronic systems that manipulate, command, guide, or constrain other devices or systems (3.1.1) by controlling output quantities.

Note: When describing the manipulation of components such as sticks and rudders, use "control system"; when describing complex control or control with feedback, use "control".

system".

3.1.3

Flight control system (FCS) it provides stability and maneuverability to aircraft (fixed-wing aircraft and helicopters), allowing pilots to change the forces acting on the aircraft.