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

GB/T 14410.6-2008

Replacing GB/T 14410.6-1993

**Flight mechanics -- Concepts, quantities and symbols -- Part 6:
Aircraft geometry**

飞行力学 概念、量和符号 第6部分：飞机几何形状
(English Translation)

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Foreword

GB/T 14410 "Flight mechanics - Concepts, quantities and symbols" is divided into nine sections.

- Part 1. Axis systems and motion state variables;
- Part 2. Forces, moments, their coefficients and derivative;
- Part 3. aircraft stability and control;
- Part 4. flight performance;
- Part 5. flight measurement;
- Part 6. Aircraft geometry;
- Part 7. Flight points and flight envelope;
- Part 8. dynamic characteristics of the aircraft;
- Part 9. atmospheric disturbance model.

This section GB/T 14410 Part 6.

The partial modification of the use of ISO 1151-6. 1982/Amd1. 1984 "aircraft flight dynamics geometry terminology and symbols." this Part of ISO 1151-6. 1982/Amd1. 1984 The main difference is the addition of "shafting aircraft structure, the trailing arm horizontal tail, vertical tail Trailing arm "and other terms.

This Part replaces GB/T 14410.6-1993 "Flight mechanics - Concepts, quantities and symbols - Part 6. Aircraft geometry." Section compared with the GB/T 14410.6-1993 The main changes are as follows.

- a) increase the "reference axis components 3.1.6", "3.5.8 center chord length" and other terms and definitions;
- b) Modify the "3.5.11 wing trapezoid ratio" is "3.5.12 aircraft wingtip root ratio" and other definitions;

- c) modify the terms and definitions have a number of references to other clauses marked;
- d) increasing the dimension of the unit, and indicated in the symbol bar;
- e) an increase in the English index.

This part is proposed by the China Aviation Industry Corporation.

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This section is drafted. Beijing University of Aeronautics and Astronautics, China Aviation Technology Institute Comprehensive, China Aviation Industry Research Institute of air power, in State Aviation Industry Development Research Center.

1 Scope

This section provides relevant and flight mechanics, aircraft used to describe the geometry of the basic terminology and symbols, these terms and symbols and not described in detail the shape of the aircraft completely.

This section applies to fixed-wing aircraft, other aircraft can use the reference.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this section, however, encourage the parties to this part of the research agreement Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 14410.1-2008 Flight mechanics - Concepts, quantities and symbols - Part 1. Axis systems and motion state variables

3 Terms, definitions and symbols

The following terms, definitions and symbols apply to this section.

No terms are defined or explained symbols and units 3.1.1 Aircraft reference plane the main parts of the aircraft relative to this surface is the left and right of Said arrangement. The reference plane is the plane shaft (3.1.4) the $R_z R_{x0}$ surface.

NOTE: In most cases, the aircraft fuselage reference plane and a reference Face is the same.

$Z R R_{x0}$

3.1.2

Airplane reference point aircraftreferencepoint Aircraft reference surface (3.1.1) on a suitably chosen Points.

3.1.3

Aircraft reference axis by airplane reference point (3.1.2) and the forward direction, solid Aircraft scheduled to reference plane in a straight line (3.1.1) on.

X0 R

3.1.4

Airplane reference shaft aircraftreferenceaxisssystem Fixed to the shaft on the plane, the origin of the reference plane Point (3.1.2), the R-axis x0 aircraft reference axis (3.1.3) Consistent, right y axis R, R z axis is the reference surface of the aircraft (3.1.1), the downward direction.

NOTE: In most cases, the aircraft fuselage reference shaft and the shaft System (3.4.1) is the same.

OR x0 R y R z R

3.1.5

Part reference point referencepointofacomponent on the part suitably selected fixed point.

3.1.6

Member reference axis Referenceaxisofacomponent Fixedly connected to the member by member reference point (3.1.5) in the appropriate direction in a straight line.