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Flight dynamics — Concepts, quantities and symbols — Part 2 : Motions of the aircraft and the atmosphere relative to the Earth ADDENDUM 1

Mécanique du vol — Concepts, grandeurs et symboles — Partie 2 : Mouvements de l'avion et de l'atmosphère par rapport à la Terre
ADDITIF 1

Addendum 1 to ISO 1151-2 : 1985 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*.

Page iii

Replace the text on this page with the text on page iii in ISO 1151-5.

Page 3

Immediately after sub-clause 2.4, add the following sub-clause :

2.5 Quantities related to energy

The quantities defined in 2.5.1 to 2.5.4 are related to the energy of the aircraft with respect to the Earth. The zero level of the potential energy is chosen arbitrarily as the geopotential altitude $H = 0$. The total flight-path climb speed (2.5.3) and the total flight-path climb angle (2.5.4) are directly accessible by flight measurements. The total flight-path altitude (2.5.2) results from an integration of the total flight-path climb speed (2.5.3).

In definitions 2.5.1 to 2.5.4 :

m is the aircraft mass (1.4.1);

V_K is the flight-path speed (2.2.1);

h is the geometric altitude (5.2.1);

H is the geopotential altitude (5.2.2);

$g(h)$ is the acceleration of free fall defined in the standard atmosphere used (ISO 2533) as a function of the geometric altitude h (5.2.1);

g_n is the standard acceleration of free fall ($g_n = 9,806\ 65\ \text{m}\cdot\text{s}^{-2}$ according to ISO 2533).

NOTE — In the following terms, the qualification "flight-path" can be omitted, if there is not likely to be any confusion with the quantities defined in 1.10.

UDC 629.7.015 : 001.4 : 003.62

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Descriptors : aircraft, dynamic properties, flight dynamics, aerodynamics, quantities, symbols, definitions.

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