

Title (en)

Method for defining the kinematic characteristics of a flying object

Title (de)

Verfahren zur Bestimmung der kinematischen Kenngrößen eines Flugobjektes

Title (fr)

Méthode pour définir les caractéristiques cinématiques d'un objet volant

Publication

EP 1273874 A3 20030625 (DE)

Application

EP 02014706 A 20020703

Priority

DE 10132317 A 20010706

Abstract (en)

[origin: EP1273874A2] Inertia acceleration and the active components of the earth's magnetic field in the radial direction relative to the roll axis of the flying object are measured from the ground over a given trajectory path for the object. The measurements are recorded with a time stamp and processed to provide data which gives the ground-related position, speed and acceleration, as well as the flying object-related Euler angle, kinematic starting angle, acceleration and rotation rate. The known direction of the earth's magnetic field in the flight region is projected onto the roll plane for the object in order to carry out the data processing. Independent claims are also included for (a) a first device used to carry out this method, comprising at least three on-board acceleration sensors, preferably orthogonal to each other and only one magnetic field sensor with the measuring axis extending in a radial direction relative to the object roll axis, and (b) a second device similar to the first one, except that there are two magnetic field sensors, preferably orthogonal to each other.

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F42B 35/00

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CPC (source: EP)

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Citation (search report)

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- [A] ANDERSON J A ET AL: "STRUCTURED VALIDATION OF MISSILE SYSTEMS", PROCEEDINGS OF THE IEEE 1996 NATIONAL AEROSPACE AND ELECTRONICS CONFERENCE (NAECON). DAYTON, MAY 20 - 23, 1996, PROCEEDINGS OF THE IEEE NATIONAL AEROSPACE AND ELECTRONICS CONFERENCE (NAECON), NEW YORK, IEEE, US, vol. 2, 20 May 1996 (1996-05-20), pages 553 - 556, XP001072346, ISBN: 0-7803-3307-1

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CN107314718A; FR2872928A1; EP1617165A1; US7500636B2

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