SLOVENSKI STANDARD
kSIST FprEN 16603-60-30:2014

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Vesoljska tehnika - Zahteve za satelitski AOCS (sistem obvladovanja orbitalne lege /satelita/)

Space engineering - Satellite AOCS requirements

Raumfahrttechnik - Anforderungen an Satelliten-AOCS

Ingénierie spatiale - Exigences pour le système de contrôle d'attitude et d'orbite d'un satellite

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Space engineering - Satellite AOCS requirements

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Raumfahrttechnik - Anforderungen an Satelliten-AOCS

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Foreword

This document (FprEN 16603-60-30:2014) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN (Germany).

This document (FprEN 16603-60-30:2014) originates from Error! Unknown document property name..

This document is currently submitted to the Unique Acceptance Procedure.

This document has been developed to cover specifically space systems and will the-refore have precedence over any EN covering the same scope but with a wider do-main of applicability (e.g. : aerospace).

Introduction

The Attitude and Orbit Control System (AOCS) requirements for the development of space programmes are typically part of the Project Requirements Document. The level of completeness and the level of detail vary very much from project to project.

This Standard provides a baseline for the AOCS requirements which are used in the specification and the validation process.

The Standard is intended to be used for each programme as an input for writing the Project Requirements Document. It includes all subjects related to AOCS:

- Functional and FDIR requirements
- Operational requirements
- Performance requirements
- Verification requirements
- Documentation requirements

1 Scope

This Standard specifies a baseline for the attitude and orbit control system requirements to be used in the Project Requirements Document for space applications.

Project requirements documents are included in business agreements, which are agreed between the parties and binding them, at any level of space programmes, as described in ECSS-S-ST-00.

This Standard deals with the attitude and orbit control systems developed as part of a satellite space project. The classical attitude and orbit control systems considered here include the following functions:

- Attitude estimation
- Attitude guidance
- Attitude control
- Orbit control
- Orbit estimation, called Navigation in this document, can be part of the function for missions which explicitly require this function
- Acquisition and maintenance of a safe attitude in emergency cases and return to nominal mission upon command

The present Standard does not cover missions that include the following functions:

- Real-time on-board trajectory guidance and control
- Real-time on-board relative position estimation and control

Example of such missions are rendezvous, formation flying, launch vehicles and interplanetary vehicles.

Although the present document does not cover the above mentioned types of mission, it can be used as a reference document for them.

This standard may be tailored for the specific characteristic and constraints of a space project in conformance with ECSS-S-ST-00.