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Irish Standard
I.S. EN 16603-70-01:2015

Space engineering - On-board control procedures

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Foreword

This document (EN 16603-70-01:2015) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN.

This standard (EN 16603-70-01:2015) originates from ECSS-E-ST-70-01C.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2015, and conflicting national standards shall be withdrawn at the latest by July 2015.

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Introduction

On-board control procedures (OBCPs) have been implemented on an ad-hoc basis on several European missions over the last 25 years, so the validity and utility of the concept has been amply demonstrated.

The purpose of the present Standard is to define an OBCP concept that can be applied for any mission and which:

- fulfils the needs of all categories of user (system engineers, on-board software engineers, AIT engineers, operations engineers);
- ensures that OBCPs have a development lifecycle that is independent of the remainder of the on-board software (OBSW);.
- conforms with, and extends, existing ECSS monitoring and control standards, namely ECSS-E-70-41 and ECSS-E-ST-70-31.

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1 Scope

This Standard defines the concept for an OBCP system, identifying the on-board functionality for OBCP execution and the ground functionality for OBCP preparation and subsequent control.

This Standard also defines the development lifecycle for OBCPs and identifies the relationships of this lifecycle with the overall space system, and in particular with the other elements of the on-board software.

This Standard assumes that missions implementing OBCPs are also compliant with ECSS-E-70-41, since a number of services contained therein are invoked in support of the operation of OBCPs and their interaction with the ground.

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

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