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BSI Standards Publication

Space sustainability — Planetary protection

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National foreword

This British Standard is the UK implementation of EN 16604-20:2020.

The UK participation in its preparation was entrusted to Technical Committee ACE/68, Space systems and operations.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Space sustainability - Planetary protection

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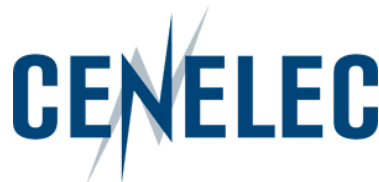
Nachhaltigkeit im Weltraum - Planetarer Schutz

This European Standard was approved by CEN on 25 November 2019.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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European Foreword

This document (EN 16604-20:2020) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN (Germany).

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of an identical text or by endorsement, at the latest by July 2020, and conflicting national standards shall be withdrawn at the latest by July 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document (EN 16604-20:2020) originates from ECSS-U-ST-20C.

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

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Sustainability in the context of space activities is a concept that becomes more relevant. Planetary protection regulations have applied this concept at the international scale already for over half a century.

The legal basis for planetary protection was established in Article IX of the United Nations Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (Outer Space Treaty).

The Committee on Space Research (COSPAR) provides a forum for international consultation and has formulated a planetary protection policy with associated requirements as an international standard to guide compliance with Article IX of the Outer Space Treaty.

COSPAR's planetary protection policy and associated requirements are based on two rationales:

1. *The Earth must be protected from the potential hazard posed by extraterrestrial matter carried by a spacecraft returning from an interplanetary mission (backward planetary protection).*
2. *The conduct of scientific investigations of possible extraterrestrial life forms, precursors, and remnants must not be jeopardized (forward planetary protection).*

This standard describes the planetary protection requirements for spaceflight missions based on the COSPAR planetary protection policy and requirements. The content of this document has been coordinated with the already existing ESA and NASA standards to ensure that requirements, documentation and reviews cover the needs and obligations of international partners for joint missions or contributions to a third party mission.

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Scope

This standard contains planetary protection requirements, including:

- Planetary protection management requirements;
- Technical planetary protection requirements for robotic and human missions (forward and backward contamination);
- Planetary protection requirements related to procedures;
- Document Requirements Descriptions (DRD) and their relation to the respective reviews.

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