Second edition
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Space systems — Space experiments — General requirements

Systèmes spatiaux — Expériences spatiales — Exigences générales

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 14, *Space systems and operations*.

This second edition cancels and replaces the first edition (ISO 14619:2003), which has been technically revised.

The main changes are as follows:

— description of new terms and definitions;

— adjustment of organizational roles and responsibilities;

— definition and clarification of the content of documents;

— addition of information on ensuring the long-term sustainability of the space environment.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document establishes the requirements for conducting space experiments (SEs).

Space systems are used for solving various practical problems of humanity. The possibilities for expanding the use of these systems are far from being exhausted. The space environment provides ideal conditions for certain scientific studies, which are difficult or impossible to carry out in a terrestrial environment.

It often happens that an experiment is conducted on board a space system that is available and operational (i.e. the experiment becomes part of the operations of the space system itself). The SE is carried out using both hardware and software subsystems. This poses a problem of accomplishing two interrelated objectives:

— to ensure successful execution and performance of the experiment;

— to avoid interfering with an operational space system so as not to impair its functioning.

One method of solving this problem is to standardize the procedure for integrating (introducing) SEs into the operational processes of the space system. This document specifies the procedures for an experiment preparation on the ground and processing of the data, obtained when conducting SEs with the use of a space system that is already operational.