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BSI Standards Publication

Space systems — Safety requirements

Part 2: Launch site operations

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National foreword

This British Standard is the UK implementation of ISO 14620-2:2019. It supersedes BS ISO 14620-2:2011, which is withdrawn.

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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Space systems — Safety requirements —

Part 2: Launch site operations

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 third edition cancels and replaces the second edition (ISO 14620-2:2011), which has been technically revised.

The main changes compared to the previous edition are related to terms and definitions which have been aligned with ISO 10795.

A list of all parts in the ISO 14620 series can be found on the ISO website.

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.

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Introduction

Space activities, carried out within the framework of outer space treaties adopted by the United Nations, may cause harm to people and create damage to public and private property and the environment. The variety of professional disciplines linked to space activities and the legal liabilities incumbent on countries require international regulations to protect Earth populations against the consequences of a possible mishap caused by these activities. The international treaties listed in [Annex A](#) define the liabilities for damage related to space activities.

This document pertains to exposed people (including populations and personnel), launch systems, manned or unmanned space vehicles, operations carried out on or from a launch site and associated procedures, natural environment, etc., during prelaunch (integration, test, checking, preparation, etc.) and launch activities.

This document is intended to be applied by any country, by any international organization, whether governmental or non-governmental, and by any operator undertaking space activities within the framework of outer space treaties adopted by the United Nations.

This document is intended to be applied by agencies, enterprises, manufacturers, customers, designers, operators, facility authorities, launch service providers, etc., participating in the activities carried out on or from a launch site, unless more restrictive requirements are imposed by the national regulations in effect on the launch site.

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Space systems — Safety requirements —

Part 2: Launch site operations

1 Scope

This document specifies requirements for the safety liabilities of countries undertaking space activities or allowing operators to perform space activities on or from their territory under outer-space treaties adopted by the United Nations. It defines the safety responsibilities for the operators involved in commercial or non-commercial space launch activities. This document establishes the overall safety requirements to be observed on a launch site for prelaunch (integration, test, checking, preparation, etc.) and launch operations of a space object. It provides the basic principles to enable any operator to implement its own safety methods, tools and procedures to ensure the safety of people and personnel, public and private property, and the environment, in a consistent and uniform manner.

The safety requirements for system safety are defined in ISO 14620-1, and the requirements for the flight safety systems in ISO 14620-3.

2 Normative reference

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10795, *Space systems — Programme management and quality — Vocabulary*

ISO 14620-1, *Space systems — Safety requirements — Part 1: System safety*

ISO 14620-3, *Space systems — Safety requirements — Part 3: Flight safety systems*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10795 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

authorization

permission granted to an *operator* (3.15) by a *responsible authority* (3.17) to perform specified space activities

Note 1 to entry: Space activities include conducting space operations, conducting *launch* (3.8) operations, operating one or more sites, and operating one or more space vehicles on or from one or more *launch sites* (3.11).

3.2

damage

loss of human life, personal injury or other health impairments, occupational illness, total or partial loss of public or private property, or degradations caused to the aforesaid property or to the environment