
**Space systems — Safety
requirements —**

**Part 3:
Flight safety systems**

Systèmes spatiaux — Exigences de sécurité —

Partie 3: Systèmes de sauvegarde en vol



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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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 second edition cancels and replaces the first edition (ISO 14620-3:2005), which has been technically revised. The main changes compared with the previous edition are as follows:

- the text has been updated to be consistent with ISO 14620-1 and ISO 14620-2.

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

Space launch activities can present hazards to people and damage to property and the environment. International space treaties adopted by the United Nations impose legal liabilities on countries involved in launching space vehicles to provide compensation for certain injuries and damages incurred as the result of such launches.

This document affects the safety of exposed people, property and environment, as well as countries and organizations conducting commercial or civil launch activities.

Space systems — Safety requirements —

Part 3: Flight safety systems

1 Scope

This document sets out the minimum requirements for flight safety systems (FSSs), including flight termination systems (FTSs, externally controlled systems or on-board automatic systems), tracking systems, and telemetry data transmitting systems (TDTs) for commercial or non-commercial launch activities of orbital or suborbital, unmanned space vehicles. The intent is to minimize the risk of injury or damage to persons, property or the environment resulting from the launching of space vehicles.

This document can be applied by any country, by any international organization, whether intergovernmental or not, and by any agency or operator undertaking the launching of space vehicles.

This document is intended to be applied by any person, organization, entity, operator or launch authority participating in commercial or non-commercial launch activities of orbital, or suborbital, unmanned space vehicles unless more restrictive requirements are imposed by the launch site country.

2 Normative references

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 14620-2, *Space systems — Safety requirements — Part 2: Launch site operations*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10795, ISO 14620-2 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

flight safety system

combination of flight-, ground- or space-based hardware and software designed, installed and/or operated specifically for providing flight safety

Note 1 to entry: This combination of equipment, facilities, procedures and personnel required to monitor operations provides protection to personnel and property both foreign and domestic from any damage that can be caused by a non-nominal flight.

Note 2 to entry: The flight safety system may include *flight termination systems* (3.2), *telemetry data transmitting systems* (3.6) and *range tracking systems* (3.4).