

First edition  
2003-02-15

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**Space systems — Space launch  
complexes, integration sites and other  
facilities — General testing guidelines**

*Systèmes spatiaux — Complexes de lancement spatial, sites  
d'intégration et autres installations — Lignes directrices pour les essais*



Reference number  
ISO/TR 17400:2003(E)

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Published in Switzerland

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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.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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.

ISO/TR 17400 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 14, *Space systems and operations*.

## Introduction

This Technical Report establishes the general characteristics related to testing at launch pad and integration sites for launch vehicle and spacecraft.

The purpose of this Technical Report is to establish the uniform practices for organizing the tests and promoting verification of all parameters and characteristics of various launch complexes. It is necessary to define the functions and to coordinate the activities of all the test participants, namely, the developers of complexes and systems, the manufacturers of systems and equipment, the organizers of tests, the customer, and others.

This Technical Report establishes recommended test activities and lists who will be responsible for the testing at launch pad and integration sites for launch vehicle and spacecraft.

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# Space systems — Space launch complexes, integration sites and other facilities — General testing guidelines

## 1 Scope

This Technical Report is applicable to new projects and programs and to redesigned and upgraded launch pad and integration sites. This Technical Report establishes the testing phases, goals, and general aspects for launch space complexes and complexes for assembly and tests of a vehicle and spacecraft and the associated equipment that, after successful testing, will be ready for launch vehicle processing and launch. This Technical Report may be applicable to the creation of international launch pad and integration sites. At creation of new launching space complexes and complexes for assembly and tests of a vehicle and spacecraft (or at their modernization) within the framework of one country, the rules established by that country may be applied.

## 2 Normative references

The following referenced documents are indispensable for the application 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 9000:2000, *Quality management systems — Fundamentals and vocabulary*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000:2000 and the following apply.

### 3.1

#### **integration site**

equipment and facility designed for launch vehicle storage, assembly, testing, preparation, maintenance, servicing and preparation for transportation to the launch pad

### 3.2

#### **international launch site**

land, ground/airborne/marine facilities, equipment, utilities, and infrastructure, created with the cooperation of several countries or the entities that belong to more than one country, necessary for the launch operations of launch vehicle and payload and for in-flight operations during the launch phase

### 3.3

#### **launch pad**

equipment and facility designed to provide for the pre-launch and launch operations of spacecraft

### 3.4

#### **launch pad site end-to-end testing**

#### **integration site end-to-end testing**

launch pad or integration site development phase including the testing and evaluation of its overall readiness to support a launch vehicle and a spacecraft