INTERNATIONAL STANDARD

ISO 10795

Second edition
2019-07

Space systems — Programme management and quality — Vocabulary

Systèmes spatiaux — Management de programme et qualité — Vocabulaire

Reference number
ISO 10795:2019(E)

© ISO 2019



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

 © ISO 2019 – All rights reserved

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Abbreviated terms **39**
Bibliography **40**

© ISO 2019 – All rights reserved

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 10795:2011), which has been technically revised.

The main changes compared to the previous edition are as follows:

— the following terms have been added: acceptable risk, acceptance of risk, assurance, authorization, availability, breadboard, breakdown structure, cause, caution condition, certificate of conformity, certification, commissioning, counterfeit part, critical <safety>, critical <general>, flight spare, functional specification, ground segment, implementation document, information system, interface control document, key characteristic, milestone, orbital disposal, qualification model, re-entry, review board, space segment, space segment element, special requirements, systems engineering, and systems engineering management;

— the following terms have been removed: audit client, audit conclusion, audit criteria, audit evidence, audit findings, availability of an item, certificate of compliance, certification procedure, Critical, launch vehicle, non-conformance, normative reference, organizational structure, part, quality manual, quality planning, space element, and spare parts.

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.

© ISO 2019 – All rights reserved

Introduction

It is intended that this document be applied for the management, engineering, and product assurance in space projects and applications. The definitions in this document specify what is accomplished, rather than how the necessary work is organized and carried out. This allows the application of existing organizational structures and methods where they are effective, and for the structures and methods to evolve as necessary without rewriting the standards. The formulation of this document takes into account the existing International Standards prepared by ISO/TC 176, *Quality management and quality assurance*.

© ISO 2019 – All rights reserved

Space systems — Programme management and quality — Vocabulary

1 Scope

This document provides definitions of all common terms used in the area of space systems and operations for programme management and quality. It does not contain terms specific to an individual International Standard in the area of space systems and operations, which are defined in that particular International Standard.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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
acceptable risk
safety (3.210) *risk* (3.206), the *severity* (3.215) and the probability of which may be reasonably accepted by humanity, without durable or irreversible foreseeable consequence on health, Earth, and the *environment* (3.92), at the present time and in the future

EXAMPLE A safety risk may be acceptable for crew members of a manned *space vehicle* (3.225) when it is comparable to that of *test* (3.239) pilots, for the personnel participating in hazardous activities when it is comparable to that of industrial workers, for people, public and private property, and the environment, when it is comparable to that of other hazardous human activities (e.g. high-speed surface travel).

[SOURCE: ISO 14620-2:2011, 3.1]

3.2
acceptance
<act> act, means of which *customer* (3.78) certifies that the object developed and manufactured in accordance with his/her *specification* (3.227), and he/she agrees with the reveal *deviations* (3.86) and *failures* (3.98) ("complaints") and that this object is free from *defects* (3.79) under its delivery by the *supplier* (3.232)

3.3
acceptance
<process> part of the *verification* (3.244) *process* (3.171), which demonstrates that the *product* (3.173) meets specified acceptance margins

[SOURCE: EN 16601-00-01:2015, 2.3.2]

3.4
acceptance criteria
minimum *requirements* (3.201) that it is necessary for an *item* (3.134) to satisfy for formal *acceptance* (3.2, 3.3)

© ISO 2019 – All rights reserved

3.5
acceptance of risk
decision to cope with consequences, should a *risk* (3.206) scenario materialize

Note 1 to entry: A risk can be accepted when its magnitude is less than a given threshold, defined in the *risk management policy* (3.209).

Note 2 to entry: In the context of *risk management* (3.208), *acceptance* (3.2, 3.3) can mean that even though a risk is not eliminated, its existence and magnitude are acknowledged and tolerated.

[SOURCE: ISO 17666:2016, 3.1.1]

3.6
accepted risk
hazard (3.120) that has not been eliminated and for which the *residual risk* (3.202) is deemed low enough to continue operation and that has been accepted by *project* (3.178)/program *management* (3.146) on the basis of documented *risk* (3.206) *acceptance* (3.2, 3.3) rationale

3.7
acceptance test
test (3.239) to determine that a *system* (3.234), *subsystem* (3.231), *component* (3.48) or functional part is capable of meeting *performance* (3.166) *requirements* (3.201) prescribed in a purchase *specification* (3.227) or other *document* (3.88) specifying what constitutes the adequate performance capability for the *item* (3.134) and to demonstrate that the item is free from manufacturing *defects* (3.79)

3.8
accident
mishap
undesired event arising from operation of any *project* (3.178)-specific *items* (3.134) which results in:

a) human death or injury;

b) loss of, or damage to, *hardware* (3.119), *software* (3.217) or facilities which could then affect the accomplishment of the *mission* (3.154);

c) loss of, or damage to, public or private property; or

d) detrimental effects on the *environment* (3.92)

[SOURCE: ISO 14620-1:2018, 3.1.1, modified — The term "mishap" has been added as an alternative.]

3.9
action
task negotiated between two and only two persons, one decision maker and one holder, whose result leads to an expected result as a description of an operation in the formulation of a solution, and is characterized by objectives in terms of cost, *quality* (3.188) and due date

3.10
action item
assignment to a designated *organization* (3.163) or individual the accomplishment of a defined objective within a specified time frame

3.11
alert
formal notification to users, informing them of a *failure* (3.98) or *nonconformity* (3.157) of an *item* (3.134), already released for use or not, that can also be present on other items already delivered (e.g. items with identical *design* (3.82, 3.83) concept, *material* (3.148), *component* (3.48) or *process* (3.171))

Note 1 to entry: An alert can also be raised when a deficiency in a specified *requirement* (3.201) that can affect the fitness for purpose in the defined application has been identified.

[SOURCE: EN 16601-00-01:2015, 2.3.6]

© ISO 2019 – All rights reserved

3.12
analysis
verification (3.244) method utilizing techniques and tools such as math *models* (3.155), compilation similarity *assessments* (3.24), *validation* (3.243) of *records* (3.194), etc., to confirm that verification *requirements* (3.201) have been satisfied

3.13
anomaly
gap between a current situation and an expected one

Note 1 to entry: An anomaly justifies an investigation that can lead to the discovery of a nonconformance, a *defect* (3.79) or a "non-lieu" (*deviation* (3.86) without impact, e.g. *product* (3.173) peculiarity).

Note 2 to entry: A deviation may be declared, foreseen or requested.

Note 3 to entry: An anomaly is often detected in comparison with what seems to be standard or with the expected use.

3.14
applicable document
document (3.88) that contains *provisions* (3.181) which, through reference in the source document, incorporates additional provisions in the source document

Note 1 to entry: In this context, a provision is an expression that takes the form of a statement, an instruction, a recommendation or a *requirement* (3.201).

3.15
approval
formal agreement by a designated *management* (3.146) official to use or apply an *item* (3.134) or proceed with a proposed course of *action* (3.9)

Note 1 to entry: Approvals shall be documented.

Note 2 to entry: Approval implies that the approving authority has verified that the item conforms to its *requirements* (3.201).

[SOURCE: EN 16601-00-01:2015, 2.3.11]

3.16
as-built configuration
configuration (3.50) of one *product* (3.173) *item* (3.134) identified by its gaps of *conformity* (3.60) with respect to its applicable configuration

Note 1 to entry: The relevant "*as-designed configuration* (3.19)" corresponds to the same "part number".

Note 2 to entry: "As-built configuration" includes any impacts from technical events, anomalies, *repairs* (3.199), life potential consumption that occurred before the product delivery and any potential *modifications* (3.156) applied on the product but not embodied in the relevant *design* (3.82, 3.83) data file.

3.17
as-built configuration list
ABCL
reporting instrument defining the "as-built status" for each serial number of a *configuration item* (3.55) subject to formal *acceptance* (3.2, 3.3)

Note 1 to entry: The ABCL shall identify the "as-manufactured" and "as-tested" statuses applicable to a part comprising a configuration item.

Note 2 to entry: Using the *configuration item data list* (3.56) as a reference, any difference between the ABCL and the *CIDL* (3.56) shall be documented in the ABCL with reference to the applicable NCR and *RFW* (3.200).

© ISO 2019 – All rights reserved

3.18
as-delivered configuration
as-built configuration (3.16) at the time of delivery

3.19
as-designed configuration
current *design* (3.82, 3.83) status at any point of time providing the complete definition of a *configuration item* (3.55)

Note 1 to entry: The starting point of the "as-designed" *configuration* (3.50) with regard to the "as-planned" configuration is based on *changes* (3.39) the company has approved internally but has not yet incorporated in the design, and on changes already implemented but not yet approved in the "as-planned" configuration.

3.20
as-ordered configuration
contractual configuration
configuration (3.50) of a *product* (3.173) *configuration item* (3.55), effectively given by its contractual approved *changes* (3.39) from the *configuration baseline* (3.51)

Note 1 to entry: At a given moment, a product may have several applicable configurations.

3.21
as-planned configuration
planned to be built statement for each *configuration item* (3.55) *unit* (3.93) being delivered

Note 1 to entry: The as-planned *configuration* (3.50) is composed of the current *configuration baseline* (3.51) and any *changes* (3.39) that the company has approved internally but has not yet embodied in the current configuration baseline.

3.22
as-qualified configuration
as-built configuration (3.16) that was certified to have satisfactorily passed specified *qualification tests* (3.187)

3.23
assembly
combination of parts, *components* (3.48) and *units* (3.93) that form a functional entity

[SOURCE: ISO 10786:2011, 3.5, modified — The definition has been editorially revised.]

3.24
assessment
systematic *process* (3.171) of collecting and analysing data to determine the current status of a *product* (3.173), a process, a *system* (3.234), a person or an *organization* (3.163)

3.25
assurance
planned and systematic activities implemented, and demonstrated as needed, to provide adequate confidence that an entity fulfils its *requirements* (3.201)

[SOURCE: EN 16601-00-01:2015, 2.3.13]

3.26
audit
systematic, independent and documented *process* (3.171) for obtaining objective evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled

Note 1 to entry: The fundamental elements of an audit include the determination of the *conformity* (3.60) of an object according to a *procedure* (3.170) carried out by personnel not being responsible for the object audited.

Note 2 to entry: An audit can be an internal audit (first party), or an external audit (second party or third party), and it can be a combined audit or a joint audit.

© ISO 2019 – All rights reserved

Note 3 to entry: Internal audits, sometimes called first-party audits, are conducted by, or on behalf of, the *organization* (3.163) itself for *management* (3.146) *review* (3.203) and other internal purposes, and can form the basis for an organization's declaration of conformity. Independence can be demonstrated by the freedom from responsibility for the activity being audited.

Note 4 to entry: External audits include those generally called second and third-party audits. Second party audits are conducted by parties having an interest in the organization, such as *customers* (3.78), or by other persons on their behalf. Third-party audits are conducted by external, independent auditing organizations such as those providing *certification* (3.37)/registration of conformity or governmental agencies.

Note 5 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition and Notes to entry have been modified to remove effect of circularity between audit criteria and audit evidence term entries, and Notes 3 and 4 to entry have been added.

[SOURCE: ISO 9000:2015, 3.13.1]

3.27
authorization
permission granted to an operator by a responsible authority to perform specified space activities

Note 1 to entry: Space activities include conducting space operations, conducting *launch operations* (3.137), operating one or more sites, and operating one or more *space vehicles* (3.225) on or from one or more launch sites.

[SOURCE: ISO 14620-2:2011, 3.2]

3.28
availability
ability of an *item* (3.134) to be in a state to perform a required *function* (3.110) under given conditions at a given instant of time or over a given time interval, assuming that the required external resources are provided

Note 1 to entry: This ability depends on the combined aspects of the *reliability* (3.198) *performance* (3.166), the *maintainability* (3.144) performance and the *maintenance* (3.145) support performance.

Note 2 to entry: Required external resources, other than maintenance resources, do not affect the availability performance of the item.

Note 3 to entry: When referring to the measure for availability, the preferred term is "instantaneous availability".

[SOURCE: ISO 16091:2018, 3.1.1]

3.29
breadboard
physical *model* (3.155) designed to test functionality and tailored to the demonstration need

[SOURCE: ISO 16290:2013, 2.1]

3.30
breakdown structure
framework for efficiently controlling some aspect of the activities of a *programme* (3.177) or *project* (3.178)

[SOURCE: ISO 27026:2011, 3.1.1]

3.31
baseline
set of information which describes exhaustively a situation at a given instant of time or over a given time interval

Note 1 to entry: It is generally used as a reference for comparison with an *analysis* (3.12) of subsequent evolutions of the information.

[SOURCE: EN 16601-00-01:2015, 2.3.22]

© ISO 2019 – All rights reserved

3.32
business agreement
legally binding agreement, for the supply of goods or services, between two or more actors in the customer-supplier chain

Note 1 to entry: Business agreements are recorded in a variety of forms, such as

— contracts,

— memoranda of understanding,

— inter-governmental agreements,

— inter-agency agreements,

— partnerships,

— bartering agreements,

— purchase orders.

[SOURCE: EN 16601-00-01:2015, 2.3.25]

3.33
calibration
all operations for the purpose of determining the values of the *errors* (3.94) and, if necessary, other metrological properties of a measuring instrument

3.34
catastrophic
capable of causing death or major *system* (3.234) destruction

3.35
cause
circumstance, condition, event or *action* (3.9) that produces an effect or gives rise to any action, phenomenon or condition

Note 1 to entry: Cause and effect are correlative terms (Oxford English Dictionary).

Note 2 to entry: Specific to this document, cause, when used in the context of *hazard analysis* (3.121), is the action or condition by which a *hazardous event* (3.122) is initiated (an initiating event). The cause can arise as the result of *failure* (3.98), human *error* (3.94), *design* (3.82, 3.83) inadequacy, induced or natural *environment* (3.92), *system* (3.234) *configuration* (3.50) or operational mode(s).

3.36
caution condition
condition which has the potential to degrade into a warning condition, and which might require specific *action* (3.9), including the implementation of special *procedures* (3.170) or restrictions on the operation of the *system* (3.234)

[SOURCE: ISO 14620-1:2018, 3.1.3]

3.37
certification
procedure (3.170) by which a party gives formal assurance that a person or an *organization* (3.163) acts, or a *product* (3.173) is, in compliance with specified *requirements* (3.201)

Note 1 to entry: Certification can be carried out by a first, second or third party.

[SOURCE: EN 16601-00-01:2015, 2.3.29]

© ISO 2019 – All rights reserved

3.38
certificate of conformity
documented information that attests to *product* (3.173) *conformity* (3.60), conformance to defined *process* (3.171), *design* (3.82, 3.83), and *specification* (3.227) *requirements* (3.201)

3.39
change
official numerically issued alterations to a *document* (3.88) or any portion thereof, usually brought about by changed conditions or more complete information

Note 1 to entry: Such *correction* (3.67) may consist of requiring re-issuance and reprinting of the entire document, or an instruction to replace several pages with a later publication page. However, such documents must be revised.

Note 2 to entry: "Class 1" ("major" for *deviation* (3.86)) are changes that impact the contractual/technical agreement reached between the *contractor* (3.66) and the *customer* (3.78). It is necessary that such changes be submitted to the customer for *review* (3.203) and *approval* (3.15) before implementation.

Note 3 to entry: "Class 2" ("minor" for deviation) are changes that do not impact the customer *contract* (3.65) and that are necessary for the *project* (3.178) and its supply chain to meet the technical/contractual *requirements* (3.201) and *provisions* (3.181). Such changes can be implemented after configuration control board (CCB) approval.

[SOURCE: ISO 21886:2019, 3.7, modified — Note 1 to entry has been added; in Note 2 and 3 to entry, the words "for deviation" has been added.]

3.40
change request
document (3.88) containing a call for a *change* (3.39) of a *requirement* (3.201) of a *product* (3.173) or *process* (3.171)

Note 1 to entry: It is of great importance in the change *management* (3.146) process.

Note 2 to entry: A change request is declarative (i.e. it states what it is necessary to accomplish) but leaves out how the change should be carried out.

3.41
characteristic
distinguishing feature

Note 1 to entry: A characteristic can be inherent or assigned.

Note 2 to entry: A characteristic can be qualitative or quantitative.

Note 3 to entry: There are various classes of characteristic, such as the following:

a) physical (e.g. mechanical, electrical, chemical or biological characteristics);

b) sensory (e.g. related to smell, touch, taste, sight, hearing);

c) behavioural (e.g. courtesy, honesty, veracity);

d) temporal (e.g. punctuality, *reliability* (3.198), *availability* (3.28), continuity);

e) ergonomic (e.g. physiological characteristic, or related to human *safety* (3.210));

f) functional (e.g. maximum speed of an aircraft).

[SOURCE: ISO 9000:2015, 3.10.1]

© ISO 2019 – All rights reserved

3.42
clean room
clean area controlled according to specified levels

Note 1 to entry: Levels specified include humidity, temperature, particulates number versus size and volume and chemical *contamination* (3.62).

3.43
commissioning
certification (3.37) of a *spacecraft* (3.224) as ready for *mission* (3.154) operations

[SOURCE: ISO 10784-1:2011, 3.1.1]

3.44
common-cause failure
failure (3.98) of multiple *items* (3.134) occurring from a single *cause* (3.35) which is common to all of them

[SOURCE: ISO 14620-1:2018, 3.1.4]

3.45
common-mode failure
failure (3.98) of multiple identical *items* (3.134) that fail in the same mode

Note 1 to entry: Common mode failures are a particular case of *common-cause failures* (3.44).

[SOURCE: ISO 14620-1:2018, 3.1.5]

3.46
common-mode fault
fault (3.101, 3.102) of multiple *items* (3.134) that exhibit the same fault mode

3.47
competence
demonstrated ability to apply knowledge and skills

Note 1 to entry: Technical competence is defined by the know-how, such as working practices, special skills ("tours de main"), mastery of technology, etc.

Note 2 to entry: Cognitive competence is knowledge, such as specific fundamental knowledge, scientific "capital", expertise in a domain, history, etc.

Note 3 to entry: Methodological competence is defined by the working methods, such as problem solving, manner of decision.

Note 4 to entry: Experimental competence is the experience related to relations with different interlocutors (e.g. *customer* (3.78) relations), to participation, to events, to "personal" *actions* (3.9), etc.

[SOURCE: ISO 9000:2015, 3.10.4, modified — "[...]to achieve intended results" has been removed from definition; Notes 1 and 2 to entry had been replaced with new ones; Notes to entry 3 and 4 have been added.]

3.48
component
part
set of *materials* (3.148), assembled according to defined and controlled *processes* (3.171), which cannot be disassembled without destroying its capability and which performs a simple *function* (3.110) that can be evaluated against expected *performance* (3.166) *requirements* (3.201)

[SOURCE: EN 16601-00-01:2015, 2.3.37, modified — NOTE 1 and 2 have been removed.]

© ISO 2019 – All rights reserved

3.49
concession
permission to use or release a *product* (3.173) or service that does not conform to specified *requirements* (3.201)

Note 1 to entry: A concession is generally limited to the delivery of products and services that have nonconforming *characteristics* (3.41) within specified limits and is generally given for a limited quantity of products and services or period of time, and for a specific use.

[SOURCE: ISO 9000:2015, 3.12.5]

3.50
configuration
interrelated functional and physical *characteristics* (3.41) of a *product* (3.173) or service defined in product *configuration* (3.50) information

[SOURCE: ISO 9000:2015, 3.10.6]

3.51
configuration baseline
approved *product* (3.173) *configuration* (3.50) information that establishes the *characteristics* (3.41) of a product or service at a point in time that serves as reference for activities throughout the *life cycle* (3.141) of the product or service

[SOURCE: ISO 9000:2015, 3.10.7]

3.52
configuration control
coordinated activities for controlling *modifications* (3.156) to a *configuration baseline* (3.51)

Note 1 to entry: Request for *deviations* (3.86) are also considered modifications to a configuration baseline.

[SOURCE: EN 16601-00-01:2015, 2.3.41]

3.53
configuration document
document (3.88) that defines the *requirements* (3.201) for the *function* (3.110), *design* (3.82, 3.83), build, production, and *verification* (3.244) for a *configuration item* (3.55)

Note 1 to entry: For space systems, configuration documents can include documents relating to the operation and disposal of the configuration item.

[SOURCE: ISO 21886:2019, 3.4]

3.54
configuration identification
coordinated activities to establish rules for *configuration item* (3.55) selection, *configuration baseline* (3.51) content definition, and *product* (3.173) and *document* (3.88) identifiers definition

[SOURCE: EN 16601-00-01:2015, 2.3.43]

3.55
configuration item
entity within a *configuration* (3.50) that satisfies an end use *function* (3.110)

[SOURCE: ISO 10007:2017, 3.3]

© ISO 2019 – All rights reserved

3.56
configuration item data list
CIDL
document (3.88) generated from the central *configuration* (3.50) database giving the current *design* (3.82, 3.83) status of a *configuration item* (3.55) at a given point of time in sufficient detail and/or providing its complete definition

Note 1 to entry: A CIDL includes the list of applicable *changes* (3.39) not yet incorporated into the *baseline* (3.31) *documentation* (3.89) and *deviations* (3.86).

3.57
configuration management
activity for establishing and maintaining consistent *records* (3.194) of the status of and *changes* (3.39) to the *performance* (3.166) parameters of a *product* (3.173) and its functional and physical attributes compared to product *design* (3.82, 3.83) and operational *requirements* (3.201)

Note 1 to entry: Configuration management is applied throughout the entire *life cycle* (3.141) of the *product* (3.173) (i.e. *development* (3.85), production, deployment, operation and disposal).

3.58
configuration status accounting
formalized recording and reporting of *configuration* (3.50) information, the status of proposed *changes* (3.39) and the status of the implementation of approved changes

[SOURCE: ISO 10007:2017, 3.4]

3.59
configuration verification
coordinated activities to determine the *conformity* (3.60) of the *configuration item* (3.55) to its *configuration document(s)* (3.53)

[SOURCE: EN 16601-00-01:2015, 2.3.47]

3.60
conformity
fulfilment of a *requirement* (3.201)

Note 1 to entry: In English the word “conformance” is synonymous but deprecated. In French the word “compliance” is synonymous but deprecated.

Note 2 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by adding Note 1 to entry.

[SOURCE: ISO 9000:2015, 3.6.11]

3.61
constraint
characteristic (3.41), result or *design* (3.82, 3.83) feature which is made compulsory or has been prohibited for any reason

Note 1 to entry: Constraints are generally restrictions on the choice of solutions in a *system* (3.234).

Note 2 to entry: Two kinds of constraints are considered, those which concern solutions, and those which concern the use of the system.

Note 3 to entry: For example constraints can come from environmental and operational conditions, law, *standards* (3.228), market demand, investments and means *availability* (3.28), or the *organization's* (3.163) policy.

[SOURCE: ISO 21351:2005, 3.1.1, modified — NOTE 4 has been removed.]

© ISO 2019 – All rights reserved

3.62
contamination
introduction of any undesirable molecular or particulate matter (including microbiological matter) into an *item* (3.134) or into the *environment* (3.92) of interest

3.63
contingency procedure
pre-planned *procedure* (3.170) for execution in response to a departure from specified behavior

3.64
continual improvement
recurring activity to enhance *performance* (3.166)

Note 1 to entry: The *process* (3.171) of establishing objectives and finding opportunities for improvement is a continual process through the use of *audit* (3.26) findings and audit conclusions, *analysis* (3.12) of data, *management* (3.146) *reviews* (3.203) or other means and generally leads to *corrective action* (3.68) or *preventive action* (3.169).

Note 2 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by adding Note 1 to entry.

[SOURCE: ISO 9000:2015, 3.3.2]

3.65
contract
legally enforceable *business agreement* (3.32) in which payment is part of the conditions

[SOURCE: EN 16601-00-01:2015, 2.3.52]

3.66
contractor
supplier (3.232) in a contractual situation

3.67
correction
action (3.9) to eliminate a detected *nonconformity* (3.157)

Note 1 to entry: A correction can be made in advance of, in conjunction with or after a *corrective action* (3.68).

Note 2 to entry: A correction can be, for example, *rework* (3.205) or regrade.

[SOURCE: ISO 9000:2015, 3.12.3]

3.68
corrective action
action (3.9) to eliminate the *cause* (3.35) of a *nonconformity* (3.157) and to prevent recurrence

Note 1 to entry: There can be more than one cause for a nonconformity.

Note 2 to entry: Corrective action is taken to prevent recurrence whereas *preventive action* (3.169) is taken to prevent occurrence.

Note 3 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by adding Notes 1 and 2 to entry.

[SOURCE: ISO 9000:2015, 3.12.2]

3.69
cost breakdown structure
hierarchical structure that depicts elements of cost

© ISO 2019 – All rights reserved

3.70
counterfeit part
unauthorized copy, imitation, substitute, or modified part (e. g., *material* (3.148), part, *component* (3.48)), which is knowingly misrepresented as a specified genuine part of an original or authorized manufacturer

Note 1 to entry: Examples of a counterfeit part can include, but are not limited to, the false identification of marking or labelling, grade, serial number, date code, *documentation* (3.89), or *performance* (3.166) *characteristics* (3.41).

[SOURCE: EN 9100:2016, modified — The article "an" has been removed from the definition for consistency with ISO/IEC Directives Part 2, 2018 edition.]

3.71
critical
<general> *characteristic* (3.41) of a *process* (3.171), process condition, parameter, *requirement* (3.201) or *item* (3.134) that deserves control and special attention in order to meet the objectives (e.g. of a *mission* (3.154)) within given *constraints* (3.61)

[SOURCE: EN 16601-00-01:2015, 2.3.55]

3.72
critical
<safety> resulting in temporarily disabling but not life-threatening injury, temporary occupational illness, major detrimental environmental effects, major damage to public or private properties, major damage to interfacing flight *systems* (3.234) or major damage to ground facilities

[SOURCE: EN 16601-00-01:2015, 2.3.56]

3.73
critical characteristic
physical attribute of an article or *material* (3.148) that, if defective, can cause loss of life or *equipment* (3.93), or make the article or material non-functional

3.74
critical design review
CDR
review (3.203) performed prior to fabrication of prototype and after completion of the *critical* (3.71, 3.72) *design* (3.82, 3.83)

Note 1 to entry: In the review, drawing *specifications* (3.227) and *test* (3.239) result of the engineering *model* (3.155) are evaluated to confirm that the result of the critical design satisfies the *requirements* (3.201) of the *contracts* (3.65) and *technical specifications* (3.238) to allow proceeding with prototype production phase.

3.75
critical hazard
potential *risk* (3.206) situation that can result in temporarily disabling but not life-threatening injury, or temporary occupational illness; loss of, or major damage to, flight *systems* (3.234), major flight system elements or ground facilities; loss of, or major damage to, public or private property, or short-term detrimental environmental effects

[SOURCE: ISO 21347:2005, 3.6]

3.76
critical item
item (3.134) that can pose a potential threat to the schedule, cost, *performance* (3.166) and *quality* (3.188) of a *project* (3.178) or *programme* (3.177)

Note 1 to entry: A critical item is controlled by a specific *action* (3.9) plan in order to mitigate emanating *risks* (3.206) and to prevent undesirable consequences.

Note 2 to entry: Examples of critical items are:

© ISO 2019 – All rights reserved

— an item not qualified or validated for the application in question (or that has previously caused problems that remain unresolved);

— an item difficult to demonstrate *design* (3.82, 3.83) performance;

— an item highly sensitive to the conditions under which it is produced or used (e.g. *contamination* (3.62), radiation);

— an item having the potential to degrade the quality of the *product* (3.173) significantly, and hence the ability of the end-product to accomplish defined *mission* (3.154) objectives;

— an item for which major difficulties or uncertainties are expected in the procurement, manufacturing, *assembly* (3.23), *inspection* (3.127), *test* (3.239), handling, storage and transportation that can have the potential to lead to a major degradation in the quality of the product.

Note 3 to entry: Critical items (e. g., *functions* (3.110), parts, *software* (3.217), *characteristics* (3.41), *processes* (3.171)) have significant effect on the *provision* (3.181) and use of the products and services; including *safety* (3.210), performance, form, fit, function, producibility, service life, etc.; that require specific actions to ensure they are adequately managed. Examples of critical items include safety critical items, fracture critical items, mission critical items, *key characteristics* (3.135), etc.

3.77
critical path
series of activities that determine the earliest completion of the *project* (3.178)

Note 1 to entry: As a consequence, delay of any one task belonging to the critical path extends the project duration.

[SOURCE: EN 16601-00-01:2015, 2.3.58]

3.78
customer
person or *organization* (3.163) that could or does receive a *product* (3.173) or a service that is intended for or required by this person or organization

EXAMPLE Consumer, client, end-user, retailer, receiver of product or service from an internal *process* (3.171), beneficiary and *purchaser* (3.182).

Note 1 to entry: A customer can be internal or external to the organization.

[SOURCE: ISO 9000:2015, 3.2.4]

3.79
defect
nonconformity (3.157) related to an intended or specified use

Note 1 to entry: The distinction between the concepts defect and nonconformity is important as it has legal connotations, particularly those associated with *product* (3.173) and service liability issues.

Note 2 to entry: The intended use as intended by the *customer* (3.78) can be affected by the nature of the information, such as operating or *maintenance* (3.145) instructions, provided by the provider.

[SOURCE: ISO 9000:2015, 3.6.10]

3.80
dependability
<of an item> ability to perform as and when required

Note 1 to entry: Its main *components* (3.48) are *reliability* (3.198), *availability* (3.28) and *maintainability* (3.144).

Note 2 to entry: The extent to which the fulfilment of a required *function* (3.110) can be justifiably trusted.

Note 3 to entry: Dependability shall be considered in conjunction with *safety* (3.210).

© ISO 2019 – All rights reserved

Note 4 to entry: Dependability is used as a collective term for the time-related *quality* (3.188) *characteristics* (3.41) of an *item* (3.134).

[SOURCE: IEC 60050-192:2015, 192-01-22]

3.81
derating
action (3.9) when designing a *product* (3.173) to limit the *component* (3.48) stresses to specified levels that are below their ratings in order to increase its *reliability* (3.198)

[SOURCE: EN 16601-00-01:2015, 2.3.62]

3.82
design, noun
<result> set of information that defines the *characteristics* (3.41) of a *product* (3.173)

[SOURCE: EN 16601-00-01:2015, 2.3.63]

3.83
design, noun
<activity> *process* (3.171) used to generate the set of information defining the *characteristics* (3.41) of a *product* (3.173)

Note 1 to entry: The design is completed at *CDR* (3.74) closure.

[SOURCE: EN 16601-00-01:2015, 2.3.64]

3.84
design review
formal, independent examination of a *design* (3.82, 3.83) to identify shortcomings that could affect the fitness for purpose, reliability, maintainability, or maintenance requirements of the item concerned

Note 1 to entry: In this context, "design" includes *requirements* (3.201), *specifications* (3.227), drawings, and supporting *documentation* (3.89).

Note 2 to entry: Design review is not, by itself, sufficient to ensure the adequacy of the emerging design.

3.85
development
process (3.171) by which the capability to adequately implement a technology or *design* (3.82, 3.83) is established before manufacture

Note 1 to entry: This process can include the building of various partial or complete *models* (3.155) of the *products* (3.173) and *assessment* (3.24) of their *performance* (3.166).

3.86
deviation
formal *authorization* (3.27) to depart from the originally specified *requirements* (3.201) for a *product* (3.173), prior to its production

Note 1 to entry: "*Waiver* (3.245)" is a posterior decision whereas "deviation" is an anterior decision with respect to production phase.

Note 2 to entry: Deviation can be a permission to use or release a product that does not conform to specified requirements.

[SOURCE: EN 16601-00-01:2015, 2.3.66, modified — Note 2 to entry has been added.]

© ISO 2019 – All rights reserved

3.87
discrepancy
departures from expected *performance* (3.166)

Note 1 to entry: They can be the result of nonconforming *hardware* (3.119) and/or *software* (3.217), or conditions occurring in *test* (3.239) set-up. These differences from expected performance levels can be momentary, non-repeatable, or permanent.

3.88
document
information and the medium on which it is contained

EXAMPLE *Record* (3.194), *specification* (3.227), *procedure* (3.170) document, drawing, report, *standard* (3.228).

Note 1 to entry: The medium can be paper, magnetic, electronic or optical computer disc, photograph or master sample, or a combination thereof.

Note 2 to entry: A set of documents, for example specifications and records, is frequently called "*documentation* (3.89)".

Note 3 to entry: Some *requirements* (3.201) (e.g. the requirement to be readable) relate to all types of documents. However there can be different requirements for specifications (e.g. the requirement to be revision controlled) and for records (e.g. the requirement to be retrievable).

[SOURCE: ISO 9000:2015, 3.8.5]

3.89
documentation
one mode of information communication

Note 1 to entry: This includes *management* (3.146) and technical data current as of a given point in time and may be used to reflect *contractor* (3.66) to *customer* (3.78) and/or contractor to contractor agreements and *procedures* (3.170). This includes such *items* (3.134) as program plans, procedures, *specifications* (3.227), *ICDs* (3.133), reports, technical publications, training documentation.

[SOURCE: SSP 30235]

3.90
EEE component
EEE part
device that performs an electrical, electronic or electromechanical (EEE) *function* (3.110), including electrooptical devices, and consists of one or more elements so joined together that they cannot normally be disassembled without destroying the functionality of the device

3.91
end item
combination of parts, assemblies, accessories, and/or attachments integrated to form an *equipment* (3.93) unit that can accomplish a specific *function* (3.110) when used

Note 1 to entry: An end item is complete within itself and classified as such for purposes of separate manufacture, procurement, drawings, *specification* (3.227), storage, issue, *maintenance* (3.145), or use.

3.92
environment
natural conditions and induced conditions that constrain the *design* (3.82, 3.83) definitions or operations of a *product* (3.173)

Note 1 to entry: Examples of natural conditions are weather, climate, ocean conditions, terrain, vegetation, dust, light and radiation.

Note 2 to entry: Examples of induced conditions are electromagnetic interference, heat, vibration, pollution and *contamination* (3.62).

© ISO 2019 – All rights reserved

[SOURCE: EN 16601-00-01:2015, 2.3.78]

3.93
equipment
unit
integrated set of parts, and *components* (3.48)

Note 1 to entry: An equipment accomplishes a specific *function* (3.110).

Note 2 to entry: An equipment is self-contained and classified as such for the purposes of separate manufacture, procurement, drawings, *specification* (3.227), storage, issue, *maintenance* (3.145), or use.

[SOURCE: EN 16601-00-01:2015, 2.3.79]

3.94
error
discrepancy (3.87) between a computed, observed or measured value or condition and the true, specified or theoretically correct value or condition

Note 1 to entry: An error can be caused by a faulty *item* (3.134), e.g. a computing error made by faulty computer *equipment* (3.93).

Note 2 to entry: The definition is from Reference [32].

3.95
estimate at completion
sum of costs incurred up to the cut-off date and the respective *estimate to completion* (3.96)

3.96
estimate to completion
estimate of all costs from the cut-off date required to deliver the *product* (3.173), based on the work to be completed and approved anticipated *contract* (3.65) *changes* (3.39)

3.97
evaluation
systematic *process* (3.171) of determining how well individuals, *procedures* (3.170), *systems* (3.234) or programs have met formally agreed objectives and *requirements* (3.201)

3.98
failure
termination of the ability of an *item* (3.134) to perform a required *function* (3.110)

[SOURCE: ISO 14620-1:2018, 3.1.9]

3.99
failure mode
rupture, collapse, detrimental deformation, excessive wear or any other phenomenon resulting in an inability to sustain loads, pressures and corresponding *environments* (3.92), or that jeopardizes *mission* (3.154) success

[SOURCE: ISO 10786:2011, 3.19, modified — NOTE has been removed.]

3.100
failure tolerance
attribute of an *item* (3.134) that makes it able to perform a required *function* (3.110) in the presence of certain given sub-item *failures* (3.98)

[SOURCE: EN 16601-00-01:2015, 2.3.83]

© ISO 2019 – All rights reserved

3.101
fault, noun
<state> the state of an *item* (3.134) characterized by inability to perform as required, excluding the inability during preventative *maintenance* (3.145) or other planned *actions* (3.9), or due to lack of external resources

Note 1 to entry: A fault is often the result of a *failure* (3.98) of the item itself, but can exist without prior failure.

[SOURCE: ISO 14620-1:2018, 3.1.10]

3.102
fault, noun
<event> an unplanned occurrence or *defect* (3.79) in an *item* (3.134) which may result in one or more *failures* (3.98) of the item itself or of other associated *equipment* (3.93)

Note 1 to entry: An item may contain a sub-element fault, which is a defect that can manifest itself only under certain circumstances. When those circumstances occur, the defect in the sub-element will cause the item to fail, resulting in an *error* (3.94). This error can propagate to other items causing them, in turn, to fail. After the failure occurs, the item as a whole is said to have a fault or to be in a faulty state.

[SOURCE: ISO 14620-1:2018, 3.1.11]

3.103
fault tolerance
<design property of a system> *fault* (3.101, 3.102) masking (deprecated in this sense) ability to continue functioning with certain faults present

Note 1 to entry: In French, the adjective “fault tolerant” is used in this sense.

3.104
fault tree analysis
FTA
analysis (3.12) using logic diagram showing the *faults* (3.101, 3.102) of sub-items, external events, or combinations thereof, that result in a predefined, undesired event

3.105
firmware
hardware (3.119) that contains a computer program or data that cannot be changed in its user *environment* (3.92)

Note 1 to entry: The computer program and data contained in firmware are classified as *software* (3.217); the circuitry containing the computer program and data is classified as hardware.

[SOURCE: EN 16601-00-01:2015, 2.3.86]

3.106
flammability
measure of the ease with which a *material* (3.148) is set on fire

[SOURCE: EN 16601-00-01:2015, 2.3.87]

3.107
flashpoint
lowest temperature at which a *material* (3.148) gives off flammable vapour that, when mixed with the *test* (3.239) atmosphere and exposed to an ignition source, provides a non-self-sustaining flash

3.108
flight operations
all activities related to the planning, execution and *evaluation* (3.97) of the control of the *space segment* (3.221) when in orbit

[SOURCE: EN 16601-00-01:2015, 2.3.89]

© ISO 2019 – All rights reserved

3.109
flight spare
spare flight *model* (3.155) that could be used in place of the flight model

[SOURCE: EN 16601-00-01:2015, 2.3.90 modified — NOTE 1 and 2 has been removed.]

3.110
function
intended effect of a *system* (3.234), *subsystem* (3.231), *product* (3.173) or *part* (3.48)

Note 1 to entry: Functions should have a single definite purpose. Function names should have a declarative structure (e.g. "Validate Telecommands"), and say "what" is to be done rather than "how". Good naming allows *design* (3.82, 3.83) *components* (3.48) with strong cohesion to be easily derived.

[SOURCE: ISO 21351:2005, 3.1.5, modified — NOTE 1 has been removed; NOTE 2 has been changed to Note 1 to entry.]

3.111
function tree
hierarchical decomposition of the *system* (3.234) *performances* (3.166) into *functions* (3.110) and sub-functions that, when all are fulfilled, completes the overall system *mission* (3.154)

3.112
functional analysis
technique of identifying and describing all *functions* (3.110) of a *system* (3.234)

[SOURCE: ISO 21351:2005, 3.1.6, modified —NOTE 1 has been removed.]

3.113
functional specification
document (3.88) by which the *customer* (3.78) establishes the intended purpose of a *product* (3.173), its associated *constraints* (3.61) and *environment* (3.92), the operational and *performances* (3.166) features, and the permissible flexibility

Note 1 to entry: This document contains a complete set of provisional technical *requirements* (3.201) for a product.

Note 2 to entry: This term is equivalent to "functional performance specification" as defined in EN 1325-1.

[SOURCE: ISO 21351:2005, 3.1.7]

3.114
functional verification
task of assuring that *hardware* (3.119) or *software* (3.217) *functions* (3.110) as per the *design* (3.82, 3.83) *requirements* (3.201)

3.115
ground operations
all activities related to the planning, execution and *evaluation* (3.97) of the control of the *ground segment* (3.116) (or subsets thereof) facility

3.116
ground segment
G/S
part of a *space system* (3.223), located on ground, which monitors and controls *space segment element(s)* (3.222)

Note 1 to entry: A ground segment is composed of one or more ground segment elements.

[SOURCE: EN 16601-00-01:2015, 2.3.95]

© ISO 2019 – All rights reserved

3.117
ground support equipment
GSE
non-flight *systems* (3.234), *equipment* (3.93) or devices necessary to support the operations of transporting, receiving, handling, *assembly* (3.23), *inspection* (3.127), *test* (3.239), checkout, servicing, launch and recovery of a *space system* (3.223) at launch, landing or retrieval sites

[SOURCE: ISO 14625:2007, 3.1.5]

3.118
ground systems
all ground *infrastructure* (3.126) elements that are used to support the preparation activities leading up to *mission* (3.154) operations, the conduct of mission operations and all post-operational activities

3.119
hardware
H/W
items (3.134) of identifiable *equipment* (3.93) including piece parts, *components* (3.48), assemblies, *subsystems* (3.231) and *systems* (3.234)

3.120
hazard
existing or potential condition of an *item* (3.134) that can result in an *accident* (3.8)

Note 1 to entry: This condition can be associated with the *design* (3.82, 3.83), fabrication, operation or *environment* (3.92) of the item, and has the potential for accidents.

Note 2 to entry: "Items" can include human beings.

[SOURCE: ISO 14620-2:2011, 3.9, modified — "mishap" has been changed to "accident", Note 2 to entry has been added.]

3.121
hazard analysis
determination of potential sources of danger, *causes* (3.35), effects, *hazard* (3.120) level, and recommended resolution for those conditions found in either the *hardware* (3.119)/*software* (3.217) *system* (3.234), the person-machine relationship, or both, that can cause loss of personnel capability, loss of system, or loss of life/injury to the public

3.122
hazardous event
occurrence leading to undesired consequences and arising from the triggering by one (or more) initiator events of one (or more) *hazards* (3.120)

[SOURCE: ISO 14620-1:2018, 3.1.13]

3.123
implementation document
formal response from the *supplier* (3.232) to the *customer's* (3.78) *project* (3.178) *requirements* (3.201) *document* (3.88) describing how all requirements will be met

[SOURCE: EN 16601-00-01:2015, 2.3.106]

3.124
incident
unexpected event that might be, or could lead to, an operational interruption, disruption, loss, emergency, crisis or *accident* (3.8)

[SOURCE: EN 16601-00-01:2015, 2.3.107, modified — NOTE has been removed.]

© ISO 2019 – All rights reserved

3.125
information system
set of resources, *procedures* (3.170) and data required in support of *project* (3.178) *management* (3.146) *processes* (3.171)

[SOURCE: ISO 10789:2011, 3.2]

3.126
infrastructure
<organization> *system* (3.234) of facilities, *equipment* (3.93) and services needed for the operation of an *organization* (3.163)

[SOURCE: ISO 9000: 2015, 3.5.2]

3.127
inspection
determination of *conformity* (3.60) to specified *requirements* (3.201)

Note 1 to entry: If the result of an inspection shows conformity, it can be used for purposes of *verification* (3.244).

Note 2 to entry: The result of an inspection can show conformity or *nonconformity* (3.157) or a degree of conformity.

[SOURCE: ISO 9000:2015, 3.11.7]

3.128
integrate logistic support
ILS
coordinated and interactive set of technical and *management* (3.146) tasks whose objectives are the following:

— to express the *requirement* (3.201) in logistics support and the environmental *constraints* (3.61) of use in the expression of operational requirement;

— to contribute to obtaining a *system* (3.234) definition including the support elements:

  — allowing the optimization and *maintenance* (3.145) of its effectiveness for all its life time, in consistency with the user resources;

  — allowing total optimization of *performance* (3.166)/costs/schedules;

— to realize, set up and to renew the support elements, according to the exploitation and the maintenance requirements

3.129
integration
process (3.171) of physically and functionally combining lower-level *products* (3.173) (*hardware* (3.119) or *software* (3.217)) to obtain a particular functional *configuration* (3.50)

3.130
interchangeability
situation when two or more *items* (3.134) possess such functional and physical *characteristics* (3.41) as to be equivalent in *performance* (3.166) and durability and capable of being exchanged one for another without alteration of the items themselves or adjoining items except for adjustment and without selection for fit or performance

Note 1 to entry: Functional and physical characteristics that constitute interchangeability are as follows.

— It is necessary that items have the same *design* (3.82, 3.83) envelope and have no use limitations imposed.

— It is necessary that items utilize the same attachments, mountings, or mating surfaces.

© ISO 2019 – All rights reserved

— It is necessary that attachments, connectors, wiring, GSE, and tubing be the same to the extent that no *rework* (3.205) is required on installation.

— It is necessary that items meet all *baseline* (3.31) design *requirements* (3.201) for performance. Performance or durability design requirements include the same *safety* (3.210), strength, electrical, mechanical, *reliability* (3.198), *maintainability* (3.144), tolerance, balance and mass requirements.

— It is necessary that items have the same adjustments, testing, operation, and *maintenance* (3.145) requirements and the same design to the extent that the same *test* (3.239) *procedures* (3.170), *specifications* (3.227), and operating procedures may be utilized.

3.131
interchangeable
<of an item> having identical external form, fit, and *function* (3.110) with another *item* (3.134), allowing its use as a replacement

3.132
interface
I/F
mechanical, thermal, electrical, or operational common boundary between two elements of a *system* (3.234)

3.133
interface control document
ICD
specification (3.227) that describes the *characteristics* (3.41) that must be controlled at the boundaries between *systems* (3.234), *subsystems* (3.231) and other elements

[SOURCE: ISO 15388:2012, 3.1.27]

3.134
item
<space system> node of a *product* (3.173) *breakdown structure* (3.30)

Note 1 to entry: Any part, *component* (3.48) device, *subsystem* (3.231), functional *unit* (3.93), *equipment* (3.93) or *system* (3.234) that can be individually considered.

Note 2 to entry: An item can be considered either as a “product” or a “component” on a “product breakdown structure” of more than two levels of decomposition. Items are designated “products” when described as being decomposed and designated “components” when described as decompositions.

3.135
key characteristic
attribute or feature whose variation has a significant effect on *product* (3.173) fit, form, *function* (3.110), *performance* (3.166), service life, or producibility, that requires specific *actions* (3.9) for the purpose of controlling variation

[SOURCE: EN 9100:2016, modified — The article “an” has been removed from the definition for consistency with ISO/IEC Directives Part 2, 2018 edition.]

3.136
launch campaign
launch activities that include *launcher* (3.139) preparation and final *integration* (3.129), *payload* (3.165) processing and integration on the launcher, and *launch operations* (3.137) including flight data gathering

[SOURCE: EN 16601-00-01:2015, 2.3.115]

3.137
launch operations
all launching related activities taking place after completion of the activities necessary to deliver a fully integrated *launcher* (3.139) up to reception of post-flight data

[SOURCE: EN 16601-00-01:2015, 2.3.117]

© ISO 2019 – All rights reserved

3.138
launch segment
part of a *space system* (3.223) that is used to transport *space segment element(s)* (3.222) into space

Note 1 to entry: A launch segment is composed of one or more launch segment elements.

Note 2 to entry: A launch segment is composed of the integrated *launcher* (3.139) and needed facilities for manufacturing (if manufacturing *hardware* (3.119) is foreseen on the launch base), testing and delivering launcher elements.

[SOURCE: EN 16601-00-01:2015, 2.3.119, modified — Note 2 to entry has been specified.]

3.139
launcher
launch vehicle
vehicle designed to transport *payloads* (3.165) to space

[SOURCE: EN 16601-00-01:2015, 2.3.127, modified — NOTE 1 has been removed; the term "launch vehicle" has been added as an alternative.]

3.140
launcher stage
complete element of a *launcher* (3.139) that delivers the defined thrust during dedicated phase of the launcher *mission* (3.154)

Note 1 to entry: A launcher stage typically consists of a main propulsion *system* (3.234), a reaction controlled system (sometimes integrated to some extent with the main propulsion system), supporting structure, forward and aft skirts, aerodynamic control and/or stabilized surfaces, a separation system and a destruction system.

Note 2 to entry: Some of the upper stages are also equipped with an avionics system.

[SOURCE: EN 16601-00-01:2015, 2.3.130, modified — NOTE 3 has been removed.]

3.141
life cycle
all phases of acquisition, operation and logistic support of an *item* (3.134) beginning with *requirement* (3.201) identification through disposal of the item

3.142
life cycle cost
total cost estimated and eventually incurred in connection with a *system* (3.234) during its acquisition, operation, *maintenance* (3.145), and disposal

Note 1 to entry: Life cycle cost can also be referred to as the total cost of ownership.

3.143
lifetime
period over which any of the *item* (3.134) properties are required to be within defined limits

[SOURCE: ISO 26871:2012, 3.1.24, modified — The words “of the item” have been added to the definition.]

3.144
maintainability
<of an item> ability to be retained in, or restored to a state in which it can perform as required, under given conditions of use and *maintenance* (3.145)

Note 1 to entry: Given conditions of use may include storage.

Note 2 to entry: Given conditions of maintenance include the *procedures* (3.170) and resources for use.

Note 3 to entry: Maintainability may be quantified using such measures as mean time to restoration, or the probability of restoration within a specified period of time.

© ISO 2019 – All rights reserved

3.145
maintenance
combination of all technical and administrative *actions* (3.9) intended to retain an *item* (3.134) in, or restore it to, a state in which it can perform as required

Note 1 to entry: Maintenance includes *management* (3.146) and supervision activities for support.

3.146
management
coordinated activities to direct and control an *organization* (3.163)

Note 1 to entry: Management can include establishing policies and objectives, and *processes* (3.171) to achieve these objectives.

Note 2 to entry: The word "management" sometimes refers to people, i.e. a person or group of people with authority and responsibility for the conduct and control of an organization. When "management" is used in this sense, it should always be used with some form of qualifier to avoid confusion with the concept of "management" as a set of activities defined above. For example, "management shall…" is deprecated whereas "top management shall…" is acceptable. Otherwise different words should be adopted to convey the concept when related to people, e.g. managerial or managers.

[SOURCE: ISO 9000:2015, 3.3.3]

3.147
management system
set of interrelated or interacting elements of an *organization* (3.163) to establish policies and objectives, and *processes* (3.171) to achieve those objectives

Note 1 to entry: A management system can address a single discipline or several disciplines, e.g. *quality* (3.188) *management* (3.146), financial management or environmental management.

Note 2 to entry: The management system elements establish the organization's structure, roles and responsibilities, planning, operation, policies, practices, rules, beliefs, objectives and processes to achieve those objectives.

Note 3 to entry: The scope of a management system can include the whole of the organization, specific and identified *functions* (3.110) of the organization, specific and identified sections of the organization, or one or more functions across a group of organizations.

Note 4 to entry: This constitutes one of the common terms and core definitions for ISO management system *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by modifying Notes 1 to 3 to entry.

[SOURCE: ISO 9000:2015, 3.5.3]

3.148
material
raw, semi-finished or finished purchased *item* (3.134) (gaseous, liquid, solid) of given *characteristics* (3.41) from which processing into a functional element of the *product* (3.173) is undertaken

3.149
mean time between failures
MTBF
expected value of the operating time between *failures* (3.98)

Note 1 to entry: "Time" is generic and should be expressed in units appropriate to the *item* (3.134) concerned, e.g. calendar time, operating time, *operating cycles* (3.160), distance run, etc., and the units should always be clearly stated.

Note 2 to entry: The practice of replacing the "T" with "D" for distance, or "K" for kilometres, etc., is deprecated.

© ISO 2019 – All rights reserved

3.150
measurement management system
set of interrelated or interacting elements necessary to achieve metrological confirmation and control of measurement *processes* (3.171)

[SOURCE: ISO 9000:2015, 3.5.7]

3.151
measuring equipment
measuring instrument, *software* (3.217), measurement *standard* (3.228), reference *material* (3.148) or auxiliary apparatus or combination thereof necessary to realize a measurement *process* (3.171)

[SOURCE: ISO 9000:2015, 3.11.6]

3.152
mechanical part
piece of *hardware* (3.119) that is not electrical, electronic or electromechanical and that performs a simple elementary *function* (3.110) or part of a function in such a way that it can be evaluated as a whole against expected *performance* (3.166) *requirements* (3.201) and cannot be disassembled without destroying this capability

Note 1 to entry: Only standard parts are subject to the mechanical parts lists; non-standard parts are described through their *materials* (3.148).

[SOURCE: ISO 10794:2018, 3.4, modified — Note 1 to entry has been added.]

3.153
milestone
designated *project* (3.178) status that indicates the amount of progress made toward project completion, or that should be achieved before the project proceeds to a new phase

[SOURCE: ISO 21349:2007, 3.2]

3.154
mission
set of tasks, duties or *functions* (3.110) to be accomplished by an element

[SOURCE: EN 16601-00-01:2015, 2.3.139]

3.155
model
physical or abstract representation of relevant aspects of an *item* (3.134) or *process* (3.171) that is put forward as a basis for calculations, predictions, or further *assessment* (3.24)

Note 1 to entry: The term "model" can also be used to identify particular instances of the *product* (3.173), e.g. flight model.

3.156
modification
scheduled replacement of an *item* (3.134) with an item of a different *configuration* (3.50) (new or modified)

Note 1 to entry: This type of *maintenance* (3.145) is accomplished during transfer periods for *mission* (3.154) and *safety* (3.210) items.

3.157
nonconformity
non-conformance
non-fulfilment of a *requirement* (3.201)

Note 1 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1.

© ISO 2019 – All rights reserved

[SOURCE: ISO 9000:2015, 3.6.9, modified — The term "non-conformance" has been added as an alternative.]

3.158
normative document
document (3.88) that provides rules, guidelines or *characteristics* (3.41) for activities or their results

Note 1 to entry: The term “normative document” is a generic term that covers such documents as *standards* (3.228), *technical specifications* (3.238), codes of practice and regulations.

Note 2 to entry: A “document” is to be understood as any medium with information recorded on or in it.

Note 3 to entry: The terms for different kinds of normative documents are defined considering the document and its content as a single entity.

[SOURCE: ISO/IEC Guide 2:2004, 3.1]

3.159
off-the-shelf
OTS
existing *item* (3.134) that has been developed for a specific application and is intended for use in another application

[SOURCE: ISO 21350:2007, 3.6]

3.160
operating cycles
cumulative number of times an *item* (3.134) completes a sequence of activation and returns to its initial state

3.161
operating life
maximum operating time or cycles that an *item* (3.134) can accrue before replacement or refurbishment without *risk* (3.206) of degradation of *performance* (3.166) beyond acceptable limits

3.162
orbital disposal
actions (3.9) performed by a *spacecraft* (3.224) or *launch vehicle* (3.139) orbital stage to permanently reduce its chance of accidental break-up and to achieve its required long-term clearance of the protected regions

[SOURCE: ISO 24113:2011, 3.4, modified — term has been changed from "disposal" to “orbital disposal".]

3.163
organization
person or group of people that has its own *functions* (3.110) with responsibilities, authorities and relationships to achieve its objectives

Note 1 to entry: The concept of organization includes, but is not limited to, sole-trader, company, corporation, firm, enterprise, authority, partnership, association, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

Note 2 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by modifying Note 1 to entry.

[SOURCE: ISO 9000:2015, 3.2.1]

3.164
original budget
budget established at, or near, the time the *contract* (3.65) was signed, based on the negotiated contract cost

© ISO 2019 – All rights reserved

3.165
payload
P/L
set of *space segment elements* (3.222) (parts of a *space system* (3.223), placed in space, to fulfil the *space mission* (3.220) objectives)

Note 1 to entry: A *spacecraft* (3.224) payload is a set of instruments or *equipment* (3.93) that performs the user mission.

Note 2 to entry: A *launcher* (3.139) payload is a set of space segment elements carried into space in accordance with agreed position, time and environmental conditions.

3.166
performance
quantifiable *characteristics* (3.41) of a *function* (3.110)

[SOURCE: EN 16601-00-01:2015, 2.3.152]

3.167
preliminary design review
PDR
review (3.203) performed prior to *critical* (3.71, 3.72) *design* (3.82, 3.83) but after preliminary design

Note 1 to entry: The review shall confirm that the *products* (3.173), the results of the preliminary design that satisfy the *system* (3.234) or *development* (3.85) *specifications* (3.227), can be materialized and transferred to the critical design phase.

3.168
preliminary hazard analysis
PHA
analysis (3.12) technique for performing an initial *risk assessment* (3.207) of a concept of a *system* (3.234) to identify safety-critical areas, evaluate *hazards* (3.120), and to identify the *safety* (3.210) *design* (3.82, 3.83) *requirements* (3.201) required in the *project* (3.178)

3.169
preventive action
action (3.9) to eliminate the *cause* (3.35) of a potential *nonconformity* (3.157) or other potential undesirable situation

Note 1 to entry: There can be more than one cause for a potential nonconformity.

Note 2 to entry: Preventive action is taken to prevent occurrence whereas *corrective action* (3.68) is taken to prevent recurrence.

[SOURCE: ISO 9000:2015, 3.12.1]

3.170
procedure
specified way to carry out an activity or a *process* (3.171)

Note 1 to entry: Procedures can be documented or not.

[SOURCE: ISO 9000:2015, 3.4.5]

3.171
process
set of interrelated or interacting activities that use inputs to deliver an intended result

Note 1 to entry: Whether the "intended result" of a process is called output, *product* (3.173) or service depends on the context of the reference.

Note 2 to entry: Inputs to a process are generally the outputs of other processes and outputs of a process are generally the inputs to other processes.

© ISO 2019 – All rights reserved

Note 3 to entry: Two or more interrelated and interacting processes in series can also be referred to as a process.

Note 4 to entry: Processes in an *organization* (3.163) are generally planned and carried out under controlled conditions to add value.

Note 5 to entry: A process where the *conformity* (3.60) of the resulting output cannot be readily or economically validated is frequently referred to as a "special process".

Note 6 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified to prevent circularity between process and output, and Notes 1 to 5 to entry have been added.

[SOURCE: ISO 9000:2015, 3.4.1]

3.172
procurement document
document (3.88) such as a purchase order, *subcontract* (3.230), *statement of work* (3.229), *technical specifications* (3.238), and interoperate work order required to define articles, *materials* (3.148) and services being procured and the terms and conditions imposed

3.173
product
output of an *organization* (3.163) that can be produced without any transaction taking place between the organization and the *customer* (3.78)

Note 1 to entry: Production of a product is achieved without any transaction necessarily taking place between provider and customer, but can often involve this service element upon its delivery to the customer.

Note 2 to entry: The dominant element of a product is that it is generally tangible.

Note 3 to entry: *Hardware* (3.119) is tangible and its amount is a countable *characteristic* (3.41) (e.g. tyres). Processed *materials* (3.148) are tangible and their amount is a continuous characteristic (e.g. fuel and soft drinks). Hardware and processed materials are often referred to as goods. *Software* (3.217) consists of information regardless of delivery medium (e.g. computer *programme* (3.177), mobile phone app, instruction manual, dictionary content, musical composition copyright, driver's license).

[SOURCE: ISO 9000:2015, 3.7.6]

3.174
product assurance
discipline devoted to the study, planning and implementation of activities intended to assure that the *design* (3.82, 3.83), controls, methods, and techniques in a *project* (3.178) result in a satisfactory degree of *quality* (3.188) in a *product* (3.173)

[SOURCE: ISO 14300-2:2011, 3.1.1]

3.175
product state
particular *configuration* (3.50) of the *product* (3.173) related to the current *configuration baseline* (3.51)

3.176
product tree
hierarchical structure depicting the *product* (3.173) orientated breakdown of the *project* (3.178) into successive levels of detail down to the *configuration items* (3.55) necessary to deliver the required *functions* (3.110)

3.177
programme
group of *projects* (3.178) managed in a coordinated way to obtain benefits not available from managing them individually

[SOURCE: ISO 14300-1:2011, 3.2]

© ISO 2019 – All rights reserved

3.178
project
unique *process* (3.171), consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific *requirements* (3.201), including the *constraints* (3.61) of time, cost and resources

Note 1 to entry: An individual project can form part of a larger project structure and generally has a defined start and finish date.

Note 2 to entry: In some projects the objectives and scope are updated and the *product* (3.173) or service *characteristics* (3.41) defined progressively as the project proceeds.

Note 3 to entry: The output of a project can be one or several *units* (3.93) of product or service.

Note 4 to entry: The project's *organization* (3.163) is normally temporary and established for the *lifetime* (3.143) of the project.

Note 5 to entry: The complexity of the interactions among project activities is not necessarily related to the project size.

[SOURCE: ISO 9000:2015, 3.4.2]

3.179
project phase
part of a total *project* (3.178) during which activities are performed to attain a designated objective as one of a series of distinct steps in carrying out a project that together constitute the project *life cycle* (3.141)

[SOURCE: ISO 16091:2018, 3.1.16]

3.180
project requirements document
document (3.88), including all normative references, that establishes *requirements* (3.201)

Note 1 to entry: Examples of a project requirements document include *standards* (3.228), *management* (3.146) *specifications* (3.227), *technical specifications* (3.238), statements of work and data requirement lists.

Note 2 to entry: This does not include the *contract* (3.65) and associated terms and conditions.

[SOURCE: ISO 16091:2018, 3.1.17, modified — the term has been changed from "project requirements documents" to "project requirements document".]

3.181
provision
expression in the context of a *normative document* (3.158) that takes the form of a statement, an instruction, a recommendation or a *requirement* (3.201)

Note 1 to entry: These types of provision are distinguished by the form of wording employed (e.g. instructions are expressed in the imperative mood, recommendations by the use of the auxiliary "should" and requirements by the use of the auxiliary "shall", and a choice or "permission", by "may").

[SOURCE: EN 45020:2006, 7.1]

3.182
purchaser
customer (3.78) in a contractual situation

Note 1 to entry: The purchaser is sometimes referred to as the "business second party".

© ISO 2019 – All rights reserved

3.183
qualification
act or conduct by the *supplier* (3.232) to provide evidences to prove that *design* (3.82, 3.83) and manufacturing (including manufacturing *process* (3.171)) of *hardware* (3.119)/*software* (3.217) is adequate to fulfil all *requirements* (3.201) under required *environment* (3.92) conditions

Note 1 to entry: This may be implemented by *analysis* (3.12), *test* (3.239), *inspection* (3.127), or demonstration.

3.184
qualification model
model (3.155), which fully reflects all aspects of the flight model *design* (3.82, 3.83), used for complete functional and environmental *qualification* (3.183) testing

[SOURCE: EN 16601-00-01:2015, 2.3.165]

3.185
qualification process
process (3.171) that covers all the *verification* (3.244) activities including all the *items* (3.134) of the *product* (3.173) (*component* (3.48), *equipment* (3.93), *subsystem* (3.231) and *system* (3.234))

[SOURCE: ISO 15865:2005, 3.1.1]

3.186
qualification review
QR
review (3.203) that aims to

— achieve *qualification* (3.183) of the *products* (3.173) as well as associated production means,

— authorise the production of the recurring products

Note 1 to entry: The achievement of technical qualification of the product elements is on the basis of the following *documents* (3.88):

— complete *design* (3.82, 3.83) justification file for the *system* (3.234) including ground element;

— qualification reports;

— finalized user's *documentation* (3.89), including installation, utilisation, operations, and *maintenance* (3.145) manuals.

3.187
qualification test
required formal contractual *test* (3.239) used to demonstrate that the *design* (3.82, 3.83), manufacturing, and *assembly* (3.23) have resulted in *hardware* (3.119) designs conforming to *specification* (3.227) *requirements* (3.201)

[SOURCE: ISO 14623:2003, 2.52, modified — the term has been changed from "qualification tests" to "qualification test".]

3.188
quality
degree to which a set of inherent *characteristics* (3.41) of an object fulfils *requirements* (3.201)

Note 1 to entry: The term “quality” can be used with adjectives such as poor, good or excellent.

Note 2 to entry: “Inherent”, as opposed to “assigned”, means existing in the *object*.

[SOURCE: ISO 9000:2015, 3.6.2]

© ISO 2019 – All rights reserved

3.189
quality assurance
QA
part of *quality* (3.188) *management* (3.146) focused on providing confidence that quality *requirements* (3.201) will be fulfilled

[SOURCE: ISO 9000:2015, 3.3.6]

3.190
quality characteristic
inherent *characteristic* (3.41) of an object related to a *requirement* (3.201)

Note 1 to entry: Inherent means existing in something, especially as a permanent characteristic.

Note 2 to entry: A characteristic assigned to an object (e.g. the price of an object) is not a quality characteristic of that object.

[SOURCE: ISO 9000:2015, 3.10.2]

3.191
quality control
part of *quality* (3.188) *management* (3.146) focused on fulfilling quality *requirements* (3.201)

[SOURCE: ISO 9000:2015, 3.3.7]

3.192
quality improvement
part of *quality* (3.188) *management* (3.146) focused on increasing the ability to fulfil quality *requirements* (3.201)

Note 1 to entry: The quality requirements can be related to any aspect such as effectiveness, efficiency or *traceability* (3.240).

[SOURCE: ISO 9000:2015, 3.3.8]

3.193
quality plan
specification (3.227) of the *procedures* (3.170) and associated resources to be applied when and by whom to a specific object

Note 1 to entry: These procedures generally include those referring to *quality* (3.188) *management* (3.146) *processes* (3.171) and to *product* (3.173) and service realization processes.

Note 2 to entry: A quality plan often makes reference to parts of the quality manual or to procedure *documents* (3.88).

Note 3 to entry: A quality plan is generally one of the results of quality planning.

[SOURCE: ISO 9000:2015, 3.8.9]

3.194
record
document (3.88) stating results achieved or providing evidence of activities performed

Note 1 to entry: Records can be used, for example, to formalize *traceability* (3.240) and to provide evidence of *verification* (3.244), *preventive action* (3.169) and *corrective action* (3.68).

Note 2 to entry: Generally records need not be under revision control.

[SOURCE: ISO 9000:2015, 3.8.10]

© ISO 2019 – All rights reserved

3.195
recurrent cost
costs incurred for each additional, identical *item* (3.134) produced

3.196
redundancy
<design property of a system> existence of more than one means for performing a *function* (3.110)

Note 1 to entry: The additional means of performing the function may be intentionally different (diverse) to reduce the potential for common mode *failures* (3.98).

3.197
re-entry
return of a *spacecraft* (3.224) or other space object into the Earth's atmosphere

Note 1 to entry: Several alternative definitions are available for the boundary between the Earth's atmosphere and outer space.

3.198
reliability
ability of an *item* (3.134) to perform a required *function* (3.110) under given conditions for a given time interval

Note 1 to entry: It is generally assumed that the item is in a state to perform this required function at the beginning of the time interval.

Note 2 to entry: Generally, reliability *performance* (3.166) is quantified using appropriate measures. In some applications these measures include an expression of reliability performance as a probability, which is also called reliability.

[SOURCE: EN 16601-00-01:2015, 2.3.170, modified — The article "the" has been removed from the definition for consistency with ISO/IEC Directives Part 2, 2018 edition.]

3.199
repair
action (3.9) on a nonconforming *product* (3.173) or service to make it acceptable for the intended use

Note 1 to entry: A successful repair of a nonconforming product or service does not necessarily make the product or service conform to the *requirement* (3.201). It can be that in conjunction with a repair a *concession* (3.49) is required.

Note 2 to entry: Repair includes remedial action taken on a previously conforming product or service to restore it for use, for example as part of *maintenance* (3.145).

Note 3 to entry: Repair can affect or change parts of the nonconforming product or service.

[SOURCE: ISO 9000:2015, 3.12.9]

3.200
request for waiver
RFW
vehicle for requiring and agreeing to the use or the delivery of a *product* (3.173) that does not conform to its approved product *configuration baseline* (3.51)

3.201
requirement
need or expectation that is stated, generally implied or obligatory

Note 1 to entry: "Generally implied" means that it is custom or common practice for the *organization* (3.163) and interested parties, that the need or expectation under consideration is implied.

Note 2 to entry: A specified requirement is one that is stated, for example in documented information.

© ISO 2019 – All rights reserved

Note 3 to entry: A qualifier can be used to denote a specific type of requirement, e.g. *product* (3.173) requirement, *quality* (3.188) *management* (3.146) requirement, *customer* (3.78) requirement, quality requirement.

Note 4 to entry: Requirements can be generated by different interested parties or by the organization itself.

Note 5 to entry: It can be necessary for achieving high customer satisfaction to fulfil an expectation of a customer even if it is neither stated nor generally implied or obligatory.

Note 6 to entry: This constitutes one of the common terms and core definitions for ISO *management system* (3.147) *standards* (3.228) given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by adding Notes 3 to 5 to entry.

[SOURCE: ISO 9000:2015, 3.6.4]

3.202
residual risk
risk (3.206) remaining after implementation of risk reduction measures

[SOURCE: ISO 17666:2016, 2.1.10]

3.203
review
documented *process* (3.171) of the *requirement* (3.201) *conformity* (3.60) or *nonconformity* (3.157) objective *evaluation* (3.97) against the requirements specified by *standards* (3.228) or specifications and their incomes on reaching any *milestone* (3.153)

Note 1 to entry: Additional activities performed during the review include:

— *analysis* (3.12) of the reasons of nonconformities;

— elaboration of recommendations on improving.

[SOURCE: ISO 15865:2005, 3.1.2]

3.204
review board
body, organized into sub-entities, as necessary, consisting of a review board chairperson or delegated person and review board members charged with evaluating the evidence of *project* (3.178) status, along with identifying issues and necessary *corrective actions* (3.68), to determine that the objectives and success criteria of a *review* (3.203) *milestone* (3.153) have been met

Note 1 to entry: The purpose of the review board is to prepare an objective *evaluation* (3.97) of the project status. Achievement of an objective evaluation is aided by use of independent experts who have no prior association with the project and no personal conflict of interest with respect to the outcome of the review.

[SOURCE: ISO 21349:2007, 3.8]

3.205
rework
action (3.9) on a nonconforming *product* (3.173) or service to make it conform to the *requirements* (3.201)

Note 1 to entry: Rework can affect or change *parts* (3.48) of the nonconforming product or service.

[SOURCE: ISO 9000:2015, 3.12.8]

3.206
risk
undesirable situation or circumstance that has both a likelihood of occurring and a potentially negative consequence on a *project* (3.178)

Note 1 to entry: Risks arise from *uncertainty* (3.241) due to a lack of predictability or control of events. Risks are inherent to any project and can arise at any time during the project *life cycle* (3.141); reducing these uncertainties reduces the risk.

© ISO 2019 – All rights reserved

[SOURCE: ISO 17666:2016, 3.1.12]

3.207
risk assessment
process (3.171) of qualitative *risk* (3.206) categorization and/or quantitative risk *evaluation* (3.97)

3.208
risk management
systematic and iterative optimisation of the *project* (3.178) resources, performed according to the established project *risk management policy* (3.209)

[SOURCE: ISO 17666: 2016, 3.1.5]

3.209
risk management policy
organization's (3.163) attitude towards *risks* (3.206), how it conducts *risk management* (3.208), the risks it is prepared to accept and how it defines the main *requirements* (3.201) for the risk management plan

[SOURCE: ISO 17666: 2016, 3.1.6]

3.210
safety
state where an acceptable level of *risk* (3.206) is not exceeded

Note 1 to entry: Risk relates to:

— fatality,

— injury or occupational illness,

— damage to *launcher* (3.139) *hardware* (3.119) or launch site facilities,

— damage to an element of an interfacing manned flight *system* (3.234),

— the main *functions* (3.110) of a flight system itself,

— pollution of the *environment* (3.92), atmosphere or outer space, and

— damage to public or private property.

[SOURCE: EN 16601-00-01:2015, 2.3.178]

3.211
safety analysis
technique used to systematically evaluate and resolve *hazards* (3.120)

3.212
safety-critical function
function (3.110) that, if lost or degraded as a result of incorrect or inadvertent operation, can result in *catastrophic* (3.34) or *critical* (3.71, 3.72) consequences

[SOURCE: EN 16601-00-01:2015, 2.3.179]

3.213
scrap
action (3.9) on a nonconforming *product* (3.173) or service to preclude its originally intended use

EXAMPLE Recycling, destruction.

Note 1 to entry: In a nonconforming service situation, use is precluded by discontinuing the service.

[SOURCE: ISO 9000:2015, 3.12.10]

© ISO 2019 – All rights reserved

3.214
security
protection from unauthorized access or uncontrolled losses or effect

3.215
severity
classification of a *failure* (3.98) or undesired event according to the magnitude of its possible consequences

[SOURCE: EN 16601-00-01:2015, 2.3.184]

3.216
single-point failure
failure (3.98) of an *item* (3.134) that results in the unrecoverable failure of the *system* (3.234)

3.217
software
S/W
programs, *procedures* (3.170), rules and any associated *documentation* (3.89) pertaining to the operations of a computer *system* (3.234)

2.218
software module
smallest program *unit* (3.93) that is discrete and identifiable with respect to compiling, combining with other units and loading

3.219
space debris
DEPRECATED: orbital debris
non-functional fragments of, or residue from, a *space segment element* (3.222), or *launch segment* (3.138) element, in Earth orbit or re-entering the Earth's atmosphere

[SOURCE: EN 16601-00-01:2015, 3.3.190, modified — NOTE 1 has been removed; "orbital debris" has been added an a deprecated term.]

3.220
space mission
user-defined *mission* (3.154) to be achieved by a *space system* (3.223)

[SOURCE: EN 16601-00-01:2015, 2.3.191]

3.221
space segment
part of a *space system* (3.223), placed in space, to fulfil the *space mission* (3.220) objectives

[SOURCE: EN 16601-00-01:2015, 2.3.193]

3.222
space segment element
element within a *space segment* (3.221)

Note 1 to entry: A space segment element can be composed of several space segment elements, e.g. a *spacecraft* (3.224) is composed of instruments, a *payload* (3.165) module and a service module.

[SOURCE: EN 16601-00-01:2015, 2.3.194]

3.223
space system
system (3.234) that contains at least a space, a ground or a *launch segment* (3.138)

Note 1 to entry: Generally a space system is composed of all three segments and is supported by a support segment.

© ISO 2019 – All rights reserved

[SOURCE: EN 16601-00-01:2015, 2.3.198]

3.224
spacecraft
S/C
manned or unmanned vehicle designed to orbit or travel in space

Note 1 to entry: A spacecraft is a *space segment element* (3.222).

[SOURCE: EN 16601-00-01:2015, 2.3.199]

3.225
space vehicle
manned or unmanned vehicle constructed or assembled for the purpose of manœuvring, moving, operating, or being placed in outer space

Note 1 to entry: A space vehicle can be a *launcher* (3.139), a rocket, a *payload* (3.165), a space capsule, a space shuttle, a space plane, a space station, etc., or any assembled combination thereof.

[SOURCE: ISO 14620-2:2011, 3.33]

3.226
special requirements
requirements (3.201) identified by the *customer* (3.78), or determined by the *organization* (3.163), which have high *risks* (3.206) of not being met, thus requiring their inclusion in the operational *risk management* (3.208) *process* (3.171). Factors used in the determination of special requirements include *product* (3.173) or process complexity, past experience, and product or process maturity

EXAMPLE Examples of special requirements include *performance* (3.166) requirements imposed by the customer that are at the limit of the industry's capability, or requirements determined by the organization to be at the limit of its technical or process capabilities.

Note 1 to entry: Special requirements and *critical items* (3.76), along with *key characteristics* (3.135), are interrelated. Special requirements are identified when determining and reviewing requirements related to the product. Special requirements can require the identification of critical items. *design* (3.82, 3.83) output can include identification of critical items that require specific *actions* (3.9) to ensure they are adequately managed. Some critical items will be further classified as key characteristics because their variation needs to be controlled.

[SOURCE: EN 9100:2016 modified — The word "those" at the beginning of the definition has been removed.]

3.227
specification
document (3.88) stating *requirements* (3.201)

EXAMPLE *Quality* (3.188) manual, *quality plan* (3.193), technical drawing, *procedure* (3.170) document, work instruction.

Note 1 to entry: A specification can be related to activities (e.g. procedure document, *process* (3.171) specification and *test* (3.239) specification), or *products* (3.173) (e.g. product specification, *performance* (3.166) specification and drawing).

Note 2 to entry: It can be that, by stating requirements, a specification additionally is stating results achieved by *design* (3.82, 3.83) and *development* (3.85) and thus in some cases can be used as a *record* (3.194).

[SOURCE: ISO 9000:2015, 3.8.7]

© ISO 2019 – All rights reserved

3.228
standard
document (3.88), established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or *characteristics* (3.41) for activities or their results, aimed at the achievement of the optimum degree of order in a given context

Note 1 to entry: Standards should be based on the consolidated results of science, technology and experience, and aimed at the promotion of optimum community benefits.

[SOURCE: ISO/IEC Guide 2:2004, 3.2]

3.229
statement of work
contractual *document* (3.88) prepared during *project* (3.178) initiation and planning that describes what the project needs to deliver and outlines all work required to complete the project

3.230
subcontract
contract (3.65) between a *contractor* (3.66) and their subordinate contractor in the customer-supplier chain to obtain *materials* (3.148) or other inputs to a *product* (3.173)

3.231
subsystem
set of interdependent elements constituted to achieve a given objective by performing a specified *function* (3.110), but that does not, on its own, satisfy the *customer's* (3.78) *requirement* (3.201)

3.232
supplier
<space system> *organization* (3.163) or person that provides a *product* (3.173) as part of a *business agreement* (3.32)

Note 1 to entry: A supplier can be internal or external to the *customer* (3.78) organization.

[SOURCE: EN 16601-00-01:2015, 2.3.209, modified — The domain <space system> has been added.]

3.233
support system
generic *infrastructure* (3.126) and services used to support the *development* (3.85) and operation of *space system* (3.223) elements

EXAMPLE Ground stations and associated networks, orbit computing facilities, *test* (3.239) centres, astronaut centre, launch facilities.

Note 1 to entry: *Items* (3.134) can be part of other segments during their development and later become part of the support segment when used (e.g. tracking network).

3.234
system
set of interrelated or interacting *functions* (3.110) constituted to achieve a specified objective

[SOURCE: EN 16601-00-01:2015, 2.3.212]

3.235
systems engineering
interdisciplinary approach governing the total technical and managerial effort required to transform a set of stakeholder needs, expectations, and *constraints* (3.61) into a solution and to support that solution throughout its life

[SOURCE: ISO/IEC/IEEE 24748-1:2018, 3.57]

© ISO 2019 – All rights reserved

3.236
systems engineering management
discipline to ensure that *system engineering* (3.235) is properly applied and can be divided in planning, control, *assessment* (3.24) and decision *analysis* (3.12), including *management* (3.146) tools like *work breakdown structures* (3.246), *risk management* (3.208), *requirements* (3.201) traceability and *reviews* (3.203)

[SOURCE: ISO 18676:2017, 3.8]

3.237
tailoring
process (3.171) by which individual *requirements* (3.201) of *specifications* (3.227), *standards* (3.228), and related *documents* (3.88) are evaluated and made applicable to a specific *project* (3.178) by selection and, in some exceptional cases, *modification* (3.156) of existing or addition of new requirements

3.238
technical specification
TS
specification (3.227) expressing technical *requirements* (3.201) for designing and developing the solution to be implemented

Note 1 to entry: The technical specification evolves from the *functional specification* (3.113) and defines the technical requirements for the selected solution as part of a *business agreement* (3.32).

[SOURCE: ISO 21351:2005, 3.1.11]

3.239
test
<space system> formal *process* (3.171) of evaluating the *performance* (3.166) of a *system* (3.234) or *item* (3.134) by manual or automatic means to identify differences among specified, expected, and actual results

3.240
traceability
ability to trace the history, application or location of an object

Note 1 to entry: When considering a *product* (3.173) or a service, traceability can relate to:

— the origin of *materials* (3.148) and *parts* (3.48);

— the processing history;

— the distribution and location of the product or service after delivery.

Note 2 to entry: In the field of metrology, the definition in ISO/IEC Guide 99 is the accepted definition.

[SOURCE: ISO 9000:2015, 3.6.13]

3.241
uncertainty
lack of certitude resulting from inaccuracies of input parameters, *analysis* (3.12) *process* (3.171), or both

Note 1 to entry: Uncertainty can be represented as an interval with an upper and lower value or as an uncertainty distribution.

[SOURCE: ISO 11231:2010, 3.1.11]

3.242
undesirable event
event whose consequences are detrimental to the success of the *mission* (3.154)

© ISO 2019 – All rights reserved

3.243
validation
confirmation, through the *provision* (3.181) of objective evidence, that the *requirements* (3.201) for a specific intended use or application have been fulfilled

Note 1 to entry: The objective evidence needed for a validation is the result of a *test* (3.239) or other form of determination such as performing alternative calculations or reviewing *documents* (3.88).

Note 2 to entry: The word "validated" is used to designate the corresponding status.

Note 3 to entry: The use conditions for validation can be real or simulated.

[SOURCE: ISO 9000:2015, 3.8.13]

3.244
verification
confirmation, through the *provision* (3.181) of objective evidence, that specified *requirements* (3.201) have been fulfilled

Note 1 to entry: The objective evidence needed for a verification can be the result of an *inspection* (3.127) or of other forms of determination such as performing alternative calculations or reviewing *documents* (3.88).

Note 2 to entry: The activities carried out for verification are sometimes called a *qualification process* (3.185).

Note 3 to entry: The word "verified" is used to designate the corresponding status.

[SOURCE: ISO 9000:2015, 3.8.12]

3.245
waiver
formal *authorization* (3.27) to accept *products* (3.173) which during production, or after having been submitted to *inspection* (3.127) or *tests* (3.239), are found to depart from specified *requirement* (3.201)

Note 1 to entry: *Deviation* (3.86) is an a priori decision whereas waiver is an a posteriori decision with respect to the production phase.

Note 2 to entry: The term "concession" is synonymous and may be used for *materials* (3.148) as per Q-ST-70C.

[SOURCE: EN 16601-00-01:2015, 2.3.229]

3.246
work breakdown structure
WBS
hierarchical representation of the activities necessary to complete a *project* (3.178)

Note 1 to entry: The work breakdown structure is the principal structure used in managing a project and provides a framework for managing cost, schedule and technical content. It divides the project into manageable *work packages* (3.247), organized according to the nature of the work by breaking down the total work to be performed into increasing levels of detail.

Note 2 to entry: The work breakdown structure is derived from the *product tree* (3.176), selected elements of which are extended to include support *functions* (3.110) (e.g. *management* (3.146), engineering, *product assurance* (3.174)) and associated services (e.g. *test* (3.239) facilities).

3.247
work package
WP
group of related tasks that are defined at the lowest level within a *work breakdown structure* (3.246)

[SOURCE: EN 16601-00-01:2015, 2.3.231]

© ISO 2019 – All rights reserved