BS EN 9116:2015



BSI Standards Publication

Aerospace series — Notice of Change (NOC) Requirements



BS EN 9116:2015 BRITISH STANDARD

National foreword

This British Standard is the UK implementation of EN 9116:2015.

The UK participation in its preparation was entrusted to Technical Committee ACE/1, International and European Aerospace Policy and Processes.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016. Published by BSI Standards Limited 2016

ISBN 978 0 580 82499 9

ICS 49.020

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 January 2016.

Amendments/corrigenda issued since publication

Date Text affected

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 9116

December 2015

ICS 49.020

English Version

Aerospace series - Notice of Change (NOC) Requirements

Série aérospatiale - Avis de modification

Luft- und Raumfahrt - Anforderungen an eine Änderungsmitteilung

This European Standard was approved by CEN on 26 September 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Cont	tents	Page
Europ	oean foreword	3
RATIC	ONALE	4
1	Scope	5
1.1	General	
1.2	Application	5
2	Normative references	6
3	Terms and definitions	7
4	Configuration change definitions	
4.1	Changes to baseline configuration	
4.2	Change types	
4.2.1	Changes that require customer acceptance prior to implementation	
4.2.2	Changes that may require customer acceptance prior to implementation	
4.2.3	Changes implemented concurrent with notification for customer acceptance	
4.2.4 4.3	Changes – non-configurationChange impact analysis tool	
4.3 5	Requirements for organizations to obtain authorization to analyze changes on	14
•	behalf of customer	15
5.1	Quality management system requirements	
5.2	Customer agreements	
5.3	Approval of design activity to perform change impact assessments	
5.3.1	Prerequisites for design activities to perform change impact assessments	
5.3.2	Requesting and maintaining design change impact assessment approval	
5.3.3	Design change impact assessment processes and procedures	17
5.4	Requirements for data submission of notice of change	17
5.5	Record retention	18
6	NOTES	18
Annex	x A (informative) Acronym log	19
Annex	x B (informative) Supplier Notification of Change (NOC) - Change Impact Analysis	
	(CIA) logic tree	20
Annex	x C (informative) List of Notice of Change (NOC) data	26
Annex	x D (informative) Sample Notice of Change (NOC) form	33

European foreword

This document (EN 9116:2015) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this European Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

RATIONALE

This European Standard was created to define the process requirements and data expectations for the submission of proposed changes in design information that requires concurrent approval of the design authority, when the design authority is different from the design activity. This European Standard provides for the organizational requirements, definitions, and data submission, including suggested data descriptions and format (paper or electronic submission).

This European Standard was created to provide for the uniform submittal of change notifications and/or approval when contractually invoked at any level or as guidance within the aviation, space, and defence industries. This European Standard can be invoked as a stand-alone requirement or used in conjunction with 9100-series standards (i.e., 9100, 9110, 9120).

To assure customer satisfaction, aviation, space, and defence industry organizations must produce and continually improve safe, reliable products that meet or exceed customer and regulatory authority requirements. The globalization of the industry and the resulting diversity of regional/national requirements and expectations have complicated this objective. End-product organizations face the challenge of assuring the quality and integration of product purchased from suppliers throughout the world and at all levels within the supply chain. Industry suppliers and processors face the challenge of delivering product to multiple customers having varying quality expectations and requirements.

The aviation, space, and defence industry established the International Aerospace Quality Group (IAQG) for the purpose of achieving significant improvements in quality and safety, and reductions in cost throughout the value stream. This organization includes representation from companies in the Americas, Asia/Pacific, and Europe. This international standard has been prepared by the IAQG.

A change process consists of design change management and/or manufacturing process change to a previously approved design (baseline configuration) of the product. This document standardizes requirements for Notice of Change (NOC) data definition and documentation for the aviation, space, and defence industries. The establishment of common requirements for use at all levels of the supply-chain is intended to improve quality, safety, and decrease costs by the elimination or reduction of organization-unique requirements and the resultant variation inherent in these multiple expectations.

1 Scope

1.1 General

The aviation, space, and defence industries rely on the development and manufacture of complex products comprised of multiple systems, subsystems, and components each designed by individual designers (design activities) at various levels within the supply chain. Each design activity controls various aspects of the configuration and specifications related to the product. When a change to design information is requested or required, the change has to be evaluated against the impacts to the higher-level system.

Proposed changes to design information that the design activity identifies to be minor and have no effect on their product requirements or specifications have the potential to be concurrently implemented and approved, where authorized to do so. Changes that affect customer mandated requirements or specifications shall be approved prior to implementation. In many cases, the design activity is not the design approver or authority; ultimate approval may be several layers above the design activity. The typical flow of design requirements to the supplier, from the design authority, and the change notification flow is presented in Figure 1.

REQUIREMENTS

Supplier Integrator Design Holder Design Authority

SUPPLIER CHANGE NOTIFICATION

Design Activity Change Evaluator (Customer) Design Authority

Figure 1 — Typical design requirements and change notification flow

Submitting NOC data either electronically or conventionally on paper is subject to the terms and conditions of the customer's contract. This also includes, where applicable, data access under the regulations of export control.

The process of exchanging, coordinating, and approving NOC data varies with the multiple relationships and agreements among all organizations concerned. The information provided by this European Standard forms the architecture for submitting and managing data that allows for concise and accurate communication using various methods. One objective of this European Standard is to provide the definition of a data set that can be integrated into any form of communication (e.g., electronic data interchange, submission of conventional paper forms).

If all or part of this European Standard is invoked in the contract, design activities and design holders (i.e., the organization responsible for the design) that have responsibility for change management of products used on other higher-level designs shall use the information and processes defined in this European Standard, and in accordance with the contract, for submitting change notifications to customers.

1.2 Application

This European Standard defines the common NOC requirements for aviation, space, and defence organizations. Included are the requirements that an internal/external supplier or subcontractor shall

use when submitting a NOC to the customer for either change authorization or notification. A NOC informs the customer of physical or functional (including software) changes to an established baseline configuration. Retention of the NOC establishes a means of configuration control and captures the evolution of the part. This requirement is of utmost importance in commercial/civil aviation products where changes to type certificated products are mandated by regulations. However, these same concepts are also required to some degree in defence and space applications per contractual requirements.

This European Standard is not applicable to products that are manufactured by a supplier to their customer's designs and processing requirements (also known as build-to-print). Change requests to this type of product shall be formally submitted to the customer and approved via the customer's change request process. Additionally, this European Standard is not applicable to commercial parts (off-the-shelf items not specifically designed for aviation, space, or defence products) for which changes in product definition is not affected or known, but change to commercial parts that are known (i.e., change in definition from one commercial part number to a different commercial part number) shall be processed in accordance with this European Standard.

When this European Standard is applied to an organization that distributes product, then this European Standard shall be a requirement from the distribution organization to the organization from which the product is procured. The distribution organization may act as a conduit for the NOC or the design activity (supplier) may work directly with the design authority (customer). The distributor should be compliant with the 9120 standard, as defined by customer requirements.

Application or implementation of this European Standard in any form, either expressed or implied, is not allowed for product which has escaped the supplier's quality system.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. When a conflict in requirements between this document and referenced standards exists, the requirements of this document shall take precedence. Nothing in this document, however, supersedes applicable laws and regulations, unless a specific exemption has been obtained.

EN 9100, Quality Management Systems — Requirements for Aviation, Space and Defence Organizations

EN 9110, Quality Management Systems — Requirements for Aviation Maintenance Organizations

EN 9120, Quality Management Systems — Requirements for Aviation, Space, and Defence Distributors

NOTE Equivalent versions (e.g., AS, EN, JISQ, SJAC, NBR) of the IAQG standards listed above are published internationally in each sector.

ANSI/ASME Y14.24, Types and Applications of Engineering Drawings [document available from American National Standards Institute (ANSI); www.ansi.org]

ARP9034, A Process Standard for the Storage, Retrieval and Use of Three-Dimensional Type Design Data

EIA – 649, *National Consensus Standard for Configuration Management* [document available from Electronic Industries Alliance (EIA) Publications; <u>www.eia.org</u>]

ISO 9000:2005, Quality management systems — Fundamentals and vocabulary

RTCA/DO-254 (EUROCAE ED-80), *Design Assurance Guide for Airborne Electronic Hardware* [document available from Radio Technical Commission for Aeronautics Inc.; www.rtca.org]

3 Terms and definitions

Definitions for general terms can be found in ISO 9000 and the IAQG Dictionary, which is located on the IAQG website. An acronym log for this European Standard is presented in Annex A. For the purpose of this European Standard, the following shall apply:

3.1

baseline configuration

the design definition for the physical product and its performance requirements from which design change control can then take place. This is determined jointly by the customer and the design activity

3.2

change evaluator

the person authorized on behalf of the design authority to assess the potential impact of the change(s), evaluates changes for the potential impact on the fit, form, or functionality of the part, system, or assembly and failure to meet the customer requirements. The change evaluator could also be the customer or the producer of the end item and/or the design authority.

3.3

critical items

those items (e.g., functions, parts, software, characteristics, processes) having significant effect on the product realization and use of the product; including safety, 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, etc.

3.4

deliverable

any design data provided to the customer which represents the product provided

3.5

design activities

the supplier design activity or subcontractor that owns the design and provides a deliverable to the customer

3.6

design authority

an organization with formal authority for the design, validation, and service support of a product

Note 1 to entry: In civil aviation, this is the organization responsible for the design of articles or for changes thereto that is the holder of a design approval granted by a regulatory authority [i.e., Type Certificate (TC); Supplemental Type Certificate (STC); Parts Manufacturer Approval (PMA); Technical Standard Order (TSO)/European Technical Standard Order (ETSO); European Part Approval (EPA); European Aviation Safety Agency (EASA) Part 21 - "Design Organization Approval Holder", or equivalent].

3.7

end item

the item that is ultimately delivered to the end user (e.g., vehicle, propulsion system)

3.8

key characteristics

an attribute or feature whose variation has a significant effect on product fit, form, function, performance, service life, or producibility that requires specific actions for the purpose of controlling variation (refer to section 3.3)

BS EN 9116:2015 EN 9116:2015 (E)

3.9

mandatory

a requirement that shall be fulfilled or common transferable data that shall be provided and systematically recorded

3.10

optional

any data field that is not defined as mandatory by this European Standard, including any special data fields requested by the customer or the originator

3.11

product

any aviation, space, and defence vehicle, engine, propeller, airframe part or equipment (within that vehicle) to be used in operating or controlling a vehicle in flight. The result of a process, which in the context of this European Standard, includes finished detailed parts, assemblies, forgings, and castings.

Note 1 to entry: Product may include software that is embedded or field loadable in the end item.

3.12

Source Control Drawing (SOCD)

provides an engineering description, qualification requirements, and acceptance criteria for items procurable from a specialized segment of industry, that provide the performance, installation, interchangeability, or other characteristics required for critical applications. Furthermore, it may provide a list of approved sources of supply and the vendor's item identification that have been qualified and approved for use in the critical application(s).

Note 1 to entry: Adapted from ANSI/ASME Y14.24.

3.13

special process

a process where the resulting output cannot be verified by subsequent monitoring or measurement and as a consequence, deficiencies become apparent only after the product is in use or has been delivered

4 Configuration change definitions

4.1 Changes to baseline configuration

A baseline configuration is an agreed configuration definition against which compliance was shown (e.g., certification baseline). Baseline configuration is captured by design data and is typically retained by the design activity. The baseline configuration shall clearly define the design characteristics and performance requirements of the product, including acceptance conditions of the products to the lowest level of detail necessary to produce the product and ensure compliance with all applicable requirements of the customer.

All changes to previously customer accepted baseline configurations shall be evaluated and approved. Until the requirements of section 5 are satisfied, each change (from the lowest level in the supply chain) shall be submitted to the customer and ultimately to the design authority for concurrence to implement. Figure 2 depicts the process when customer delegated change evaluation is not obtained and Figure 3 is for organization's with customer delegated change evaluation approval.

The product baseline configuration from which changes will be evaluated may include:

- a. SOCD.
- b. Product specifications and drawings, including electronic data sets and supersession.

- c. Bill of Materials (BOM), including definition of spare or substitute parts which may be used in repair, but have different definition than those of baseline configuration parts.
- d. Process specifications in accordance with contractual requirements.
- e. Manufacturing methods, as shown on engineering drawings.
- f. Product usage/function/systems application, which may include:
 - Effect of product failure on system application.
 - Identification of key components, processes, and/or characteristics, as applicable.

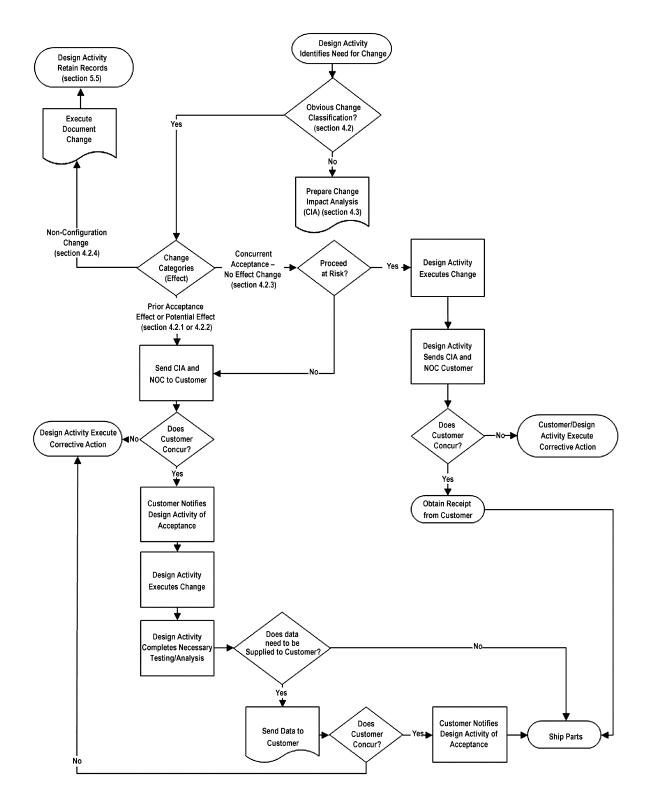


Figure 2 — **Flow chart for Notice of Change (NOC) submittal** (Design Activity is NOT Authorized to Analyze Changes on Behalf of Customer)

NOTE Design activity <u>does NOT meet</u> criteria of section 5.

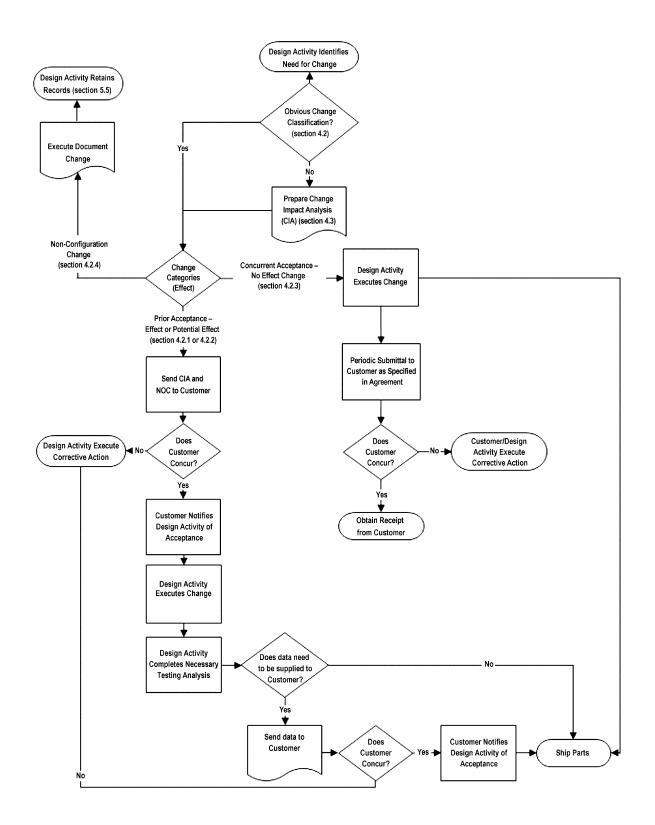


Figure 3 — Flow chart for Notice of Change (NOC) submittal (Design Activity is Authorized to Analyze Changes on Behalf of Customer)

NOTE Design activity <u>meets</u> criteria of section 5.

4.2 Change types

Change types are controlled by the customer and/or design authority. The following are default categories that shall apply, unless modified or changed by the customer/design authority.

4.2.1 Changes that require customer acceptance prior to implementation

These are changes in design or design information that will always require prior acceptance from the customer, unless otherwise stated in the contract:

- a. Any change that affects product airworthiness or safety.
- b. Any change to product function.
- c. Any change affecting a SOCD or top-level drawing.
- d. Any change to product performance tolerances specified by customer or product definition.
- e. Weight, balance, or moment of inertia change outside of specification requirements.
- f. Change affecting interchangeability, compatibility, maintainability, or repairability at customer serviceable level.
- g. Electromagnetic characteristics or signature change.
- h. Change in product technical data, including Qualification Test Plan (QTP) or Acceptance Test Plan (ATP); see section 4.2.1.q.
- i. Any change in installed software/firmware that changes the software identity or functionality.
- j. Change affecting environmental interactions (e.g., use of hazardous/prohibited materials).
- k. Change affecting traceability of a required traceable item.
- l. Any change to a 'frozen' design or process.
- m. Change to customer identified 'critical items' or 'key characteristics'.
- n. Change that negatively impacts contractual prices, schedules, or deliveries to the customer.
- o. Change that positively or negatively impact Failure Modes and Effects Analysis (FMEA) or Failure Review and Corrective Action System (FRACAS) information originally approved.
- p. Any change of electronic or specific component.
- q. Any change to tooling or gages used for product acceptance.

4.2.2 Changes that may require customer acceptance prior to implementation

Depending on product definition or customer requirements, these types of changes to design information may also require prior acceptance from the customer. The customer agreement shall determine prior acceptance requirements.

a. Change to the BOM.

- b. Any change of a special process (type or process).
- c. Change of special process sources.
- d. Change in sources of supply of sub-components, may include obsolescence.
- e. Change in manufacturing methods, including changes to specified tolerances.
- f. Change in location of manufacture for the end item.
- g. Change to manuals or instructional material which has been provided to the customer (e.g., component maintenance manuals, shop manuals).
- h. Revision to a repair/modification drawing that changes the baseline configuration, which had been previously approved by the design holder/design authority.

4.2.3 Changes implemented concurrent with notification for customer acceptance

Changes other than those described in sections 4.2.1, and potentially 4.2.2, may be implemented and delivered prior to customer acceptance, if the authority to proceed is granted in accordance with section 5 requirements. Any change to design information that does not require prior customer acceptance is considered eligible for implementation and requires a NOC record to be created. Submittal of the NOC record to the customer concurrently for any change is necessary, when required by the customer/design authority.

If authority for change implementation is not granted from the customer, then changes other than those defined in sections 4.2.1, and potentially 4.2.2, may be implemented at the risk of the design and manufacturing activities, but shall not be delivered to the customer pending acceptance.

4.2.4 Changes - non-configuration

Changes to design information that are clerical in nature or are to correct errors in previously approved design information, and do not effect items listed in sections 4.2.1, 4.2.2, and 4.2.3, do not have to be reported or documented via the NOC process defined in this European Standard. However, these types of changes do have to be recorded and documented within the design activities' configuration management system and records retained per section 5.5. In addition, the design authority/customer may negotiate with the design holder/supplier a schedule for notification of non-configuration changes for information purposes.

Examples of non-configuration changes include:

- a. Drawing corrections; bringing records in line with manufacturing practices.
- b. Drawing corrections; elimination of clerical/typing/drafting drawing errors.
- c. Addition of instructional information and/or inspection requirements to a drawing, but shall not remove or modify without prior approval.
- d. Alteration of non-functional features, as long as, no formal qualification testing is required, providing that any change does not increase the envelope of the unit or affect unit performance.
- e. Addition of dash number to catalogue component drawings; does not affect existing configurations.
- f. Supplier order office name and address changes/additions for industry standard catalogue components and detail parts.

- Revision of notes to incorporate latest revision of industry standards and supplier company specifications where there is no impact on configuration or product characteristics or change to contractual requirements.
- h. Addition, selection, or amendment of data/information on drawings not delivered to the customer where there is no impact on configuration or product characteristics or change to contractual requirements.
- Changes to the format of drawings not delivered to the customer [e.g., transfer from paper to Computer-aided Design (CAD) format].
- Corrections to component part markings that do not affect traceability. j.
- Update of the method of component part marking, but not the contents.
- Changes that do not require update to design technical data delivered to the customer. l.

4.3 Change impact analysis tool

In order to assist in proper evaluation of changes, there is an industry-developed tool for the evaluation change change and configuration effects. This tool is available of

	<u> </u>	0	0				
http	o://www.sae.org/iag	g/publications/9	116toollink.docx	and is intended t	o assist the	design	activity in
the	evaluation of the ca	tegory of change	per section 4.2 w	ith respect to the	impact on:		
_	A:	-4					
a.	Airworthiness (safe	etyj.					

- Form.
- Fit.
- Function.
- Mass properties.
- Environment. f.
- Reliability.
- Drawing, engineering data (e.g., three-dimensional models), or specification changes.
- Traceability.
- In-service effects.
- Producibility or inspectability.
- Test. l.
- m. Contractual price.

The description of the questions is listed in Annex B; for the most current information, consult the referenced IAQG website. The requirements as to what constitutes a change are subject to customer purchase and contract agreements in effect at the time of the product change request.

NOTE The design authority or the customer reserves the right to use an alternative tool or not to use the tool, based on its applicability to their products.

5 Requirements for organizations to obtain authorization to analyze changes on behalf of customer

The design activity shall submit a Change Impact Analysis (CIA) and a NOC to the customer, prior to implementing any change described in sections 4.2.1, 4.2.2, and 4.2.3. However, the design activity shall meet the criteria requirements of sections 5.1 and 5.2 in order to be authorized to analyze changes described in section 4.2.3 on behalf of the customer (see Figure 3).

5.1 Quality management system requirements

The design activity shall have a quality management system that contains the following, at a minimum:

- a. A design control system that complies with the applicable requirements detailed in the 9100 standard (see section 7.3).
- b. A configuration management system that complies with the requirements of EIA 649 or the 9100 standard (see section 7.1.3).
- c. Control of sub-tier supplier changes in accordance with the 9100 standard (see section 7.4.2).
- d. Control of nonconforming product in accordance with the 9100 standard (see section 8.3).
- e. A corrective action process in accordance with the 9100 standard (see section 8.5.2).
- f. Record retention in accordance with the 9100 standard (see section 4.2.4).

5.2 Customer agreements

In order to be eligible for submitting design information changes or change requests concurrently, the supplier/design activity shall have the following agreements with the customer/design authority, at a minimum:

- a. Baseline definition of each product in compliance with section 4.1.
- b. A process for authorization of personnel with the necessary product knowledge to verify design analysis determinations in terms of change effects.
- c. Customer review/acceptance cycle and frequency of submittal of NOCs.
- d. A formal approval, including any limitations, from the customer allowing use of the authorization provisions of this European Standard (see section 5.3).

Additionally, the supplier/design activity shall be subject to approval and reviews by the customer or design authority for assurance that the requirements of section 5.1 are satisfied and for verification of change classifications. This includes access to and review of design data, procedures, and records at the supplier/design activity by the customer/design authority. The method of review and approval is at the discretion of the customer/design authority.

5.3 Approval of design activity to perform change impact assessments

The approval to perform design change impact assessments, on behalf of the customer/design authority, is intended for suppliers that design the product. The customer/design authority has the responsibility to ensure design changes to its products comply with applicable customer and regulatory requirements. This requires that the customer/design authority maintain the appropriate level of definition, approval, and oversight of the design change impact assessments performed by supplier/design activities. The customer/design authority reserves the right for the definition and interpretation of all requirements associated with these design change impact assessments.

5.3.1 Prerequisites for design activities to perform change impact assessments

Supplier/design activities shall meet the following prerequisites before requesting any level of design change impact assessments approvals:

- a. The supplier/design activity shall have a quality system that complies with the requirements delineated within section 5.1.
- b. The supplier/design activity shall have sufficient design capability recognized by the customer/design authority for the products for which they are requesting design change impact assessment approval. Design capability is typically recognized by the customer/design authority through a contract requirement for design to a specification, SOCD, or other engineering definition.
- c. The supplier/design activity shall have Engineering organizations in place, and of sufficient breadth and capability, as recognized by the customer/design authority, to implement and support the design change impact assessment system.
- d. The supplier/design activity shall have written procedures to implement and support the design change impact assessment system per section 5.3.3. The procedures, and any subsequent revisions, shall be submitted to the customer/design authority for approval prior to implementation. The implementation procedures of the supplier/design activity should be initially submitted for review/approval with the authorization request letter defined within section 5.3.2.

5.3.2 Requesting and maintaining design change impact assessment approval

- a. Supplier/design activities that meet the prerequisites of sections 5.1 and 5.2, shall request design change impact assessment approval by submitting an authorization request letter to the customer/design authority to define the scope of the proposed design change impact assessment. The letter shall identify the type of product being supplied on which the supplier/design activity has design capability and requests design change impact assessment approval. The letter shall also identify the applicable supplier/design activity design change impact assessment procedure(s) that meet the requirements of this European Standard.
- b. The customer/design authority will review the supplier/design activity request to determine if it is within the scope for design change impact assessment approval. If the scope is acceptable, the customer/design authority will notify the supplier/design activity in writing authorizing the supplier/design activities' design change impact assessment approval, at which point the supplier/design activity may begin performing design change impact assessments on behalf of the customer/design authority, and within requirements of this European Standard. A record of the supplier/design activities' design change impact assessment approval request and customer/design authority's authorization letters shall be retained by the supplier/design activity.
- c. The supplier/design activity shall submit a new design change impact assessment approval request letter for changes in scope (e.g., providing a new type of product, additional approval for existing

product).

d. Deviations from the requirements of this European Standard may be requested by the supplier/design activity through correspondence with the customer/design authority, but shall be approved by the customer/design authority prior to implementation. Records of any approved deviations shall be documented and retained by the supplier/design activity.

5.3.3 Design change impact assessment processes and procedures

The supplier/design activity shall maintain processes and procedures that clearly define the requirements of their overall design change impact assessment system including the following:

- a. Design change impact assessment system description.
- b. Design change impact assessment system scope of approval identified in section 5.3.2.a.
- c. Design change impact assessment system organizational responsibilities and reporting relationships.
- d. Design change impact assessment system forms.
- e. Design change impact assessment system personnel listing and any limits on their authority to conduct design change impact assessment on behalf of the customer/design authority.
- f. Design change impact assessment system personnel qualifications including education, experience, product and process knowledge, training, and training maintenance requirements.
- g. Design change impact assessment system records and retention requirements.

The supplier/design activities design change impact assessment processes and procedures shall clearly define how design change impact assessment authority is given to sub-tier supplier/design activities and how the requirements of this document are flowed down. The supplier/design activities' records shall include a listing of any sub-tier supplier/design activities that have been given design change impact assessment authority and their applicable design change impact assessment processes, if applicable.

5.4 Requirements for data submission of notice of change

Data related to the NOC (e.g., content, format, size) should be in accordance with the complete data set as defined in Annex C, "List of Notice Of Change (NOC) Data". Data may be in either in electronic or paper form. Mandatory data (in bold and marked with an *) shall be systematically recorded and transferred to every customer. Optional data (without marking) shall appear when requested by the customer but may also appear at originator's own needs.

NOTE 1 For any data field recorded and transferred, whether mandatory or optional, not applicable (N/A) shall be entered as a minimum requirement prior to final approval/signature, if there is no data to be entered.

NOTE 2 Different customers may require different optional data fields tailored to meet contractual requirements. It is therefore recommended that the Information Technology (IT) System (electronic data storage) is capable of processing all sets of data (i.e., mandatory, optional). The system should recognize data fields not effectively used as being inactive, and should be capable of adding new requirements or changing existing requirements.

The entities responsible for entering and/or approving/acknowledging NOC data shall process the activities in accordance with the terms and conditions of the contract.

Attached files shall preferably be in a protected format (e.g., pdf, tif, jpg). Formats that can be easily changed (e.g., doc, xls, ppt) should be avoided, as much as possible, but may be used if necessary. In such cases, appropriate precautions should be taken to prevent inadvertent changes to the document. Some data systems actually impose file-size constraints (e.g., maximum 500 kbyte). Due to the fact that pictures occupy large amounts of electronic memory space, a 'file optimization tool' (e.g., zip, number of dpi, appropriate compressed format) shall be used, when feasible, to minimize the size of attached files.

When the NOC is not required in electronic format and/or when it is required as a printout, it shall be in a linear format similar to the example shown in Annex D, "Sample Notice of Change (NOC) Form". However, the size and order of the fields may be changed to suit the individual application provided that:

- a. The box numbers and contents allocation specified in this European Standard are maintained.
- b. All mandatory data fields are printed out on the paper form.
- c. The form is not changed to the extent that would make it unrecognizable.
- d. It is in line with contractual/regulatory requirements.

Forms may be pre-printed, computer generated, or accessed via a net-based system (intranet/internet); providing in all cases, the printing of lines and characters are clear and legible. The information entered on the forms shall preferably be machine/computer printed, but may be handwritten as long as block letters are used and the document remains legible. The use of abbreviations should be kept at a minimum.

When required, continuation/additional sheets and attachments shall include the same NOC reference number as the original document.

The information in the data fields shall be in English. Other languages may be acceptable (e.g., bilingual: English and native language), when in line with contractual requirements.

5.5 Record retention

Change records including NOC data and approvals or acknowledgements shall be retained in accordance with design data requirements of the customer.

NOTE Typically, design information is required to be retained for 25 years or the service life of the product plus seven (7) years, whichever is longer. Data should be maintained in either paper or electronic format; the requirements of ARP9034 should be considered for the storage of data in electronic formats.

6 NOTES

A change bar (|) located in the left margin is for the convenience of the user in locating areas where technical revisions, not editorial changes, have been made to the previous issue of this document. An (R) symbol to the left of the document title indicates a complete revision of the document, including technical revisions. Change bars and (R) are not used in original publications, nor in documents that contain editorial changes only.

Annex A (informative) Acronym log

ATP Acceptance Test Plan

BOM Bill of Materials

CAD Computer-aided Design

CIA Change Impact Analysis

CPU Central Processing Unit

EASA European Aviation Safety Agency

EIA Electronic Industries Alliance

EPA European Part Approval

ETSO European Technical Standard Order

FMEA Failure Modes and Effects Analysis

FRACAS Failure Review and Corrective Action System

IAQG International Aerospace Quality Group

ISO International Organization for Standardization

IT Information Technology

NOC Notice of Change

PMA Parts Manufacturer Approval

QTP Qualification Test Plan

RF Radio Frequency

SOCD Source Control Drawing

STC Supplemental Type Certificate

TC Type Certificate

Annex B (informative) Supplier Notification of Change (NOC) - Change Impact Analysis (CIA) logic tree

Don't Know	Prior	Prior	Prior	Prior	Prior	Prior	May be Prior
	Acceptance	Acceptance	Acceptance	Acceptance	Acceptance	Acceptance	Acceptance
0N	Non-	Non-	Non-	Non-	Non-	Non-	Non-
	Configuration	Configuration	Configuration	Configuration	Configuration	Configuration	Configuration
	Change	Change	Change	Change	Change	Change	Change
Yes	Prior	Prior	Prior	Prior	Prior	Prior	May be Prior
	Acceptance	Acceptance	Acceptance	Acceptance	Acceptance	Acceptance	Acceptance
Question	Is the change in response to a safety or airworthiness concern?	Will the change impact positively or negatively Failure, Modes, and Effects Analysis (FMEA) or Failure Review and Corrective Action System (FRACAS) information originally approved?	Does the change affect the external configuration of the assembly (including visual impact when it is a requirement) or any external interface between the assembly and surrounding systems?	Does the change include changes to materials that could impact interface characteristics between the assembly and surrounding systems?	Will the change impact interchangeability, compatibility, maintainability, or repairability of the assembly within the surrounding system?	Will the change impact interchangeability, compatibility, maintainability, or repairability of the components within an assembly, but not of the assembly within the surrounding system?	Does the change introduce a new replaceable component part number within the assembly, including alterations, as an alternative or deletion of an alternative in the Bill of Materials (BOM) for the assembly (e.g., to address obsolescence)?
Impact of Change	Airworthiness	Airworthiness	Form	Form	Fit	Fit	Fit
Question Number	1	2	3	4	ß	9	7

Question Number	Impact of Change	Question	Yes	No	Don't Know
8	Fit	Will the change only affect interchangeability, compatibility, maintainability, or repairability of parts within a component?	May be Prior Acceptance	Non- Configuration Change	May be Prior Acceptance
6	Mass Properties	Will the change have an impact on weight, balance, or moment of inertia of the assembly?	Open Question 10	Non- Configuration Change; Go to Question 12	Open Question 10
10	Mass Properties	Will the change be within the stated tolerance levels?	Concurrent Notification	Prior Acceptance	Prior Acceptance
11	Function	Does the change affect the functionality of the assembly?	Open Question 12	Non- Configuration Change; Go to Question 13	Open Question 12
12	Function	Does the change affect the functionality, but is within tolerances specified by the customer or previously declared by the supplier?	Concurrent Notification	Prior Acceptance	Prior Acceptance
13	Function	Will the change alter the specified electromagnetic characteristics of the assembly?	Prior Acceptance; Open Questions 14 thru 19	Non- Configuration Change; Go to Question 20	Prior Acceptance; Open Questions 14 thru 19
14	Function	Did the change affect the reset or restart of the assembly?	Prior Acceptance; Open Outcome A	Prior Acceptance	Prior Acceptance
15	Function	Did data bus speeds/label update rates, analogue sampling rates, or Central Processing Unit (CPU) operating frequencies change?	Prior Acceptance	Prior Acceptance	Prior Acceptance

Question Number	Impact of Change	Question	Yes	No	Don't Know
16	Function	Did the change affect the Radio Frequency (RF) response of the component? This includes changes in chassis openings, input circuitry filtering or lightning protection, circuit card trace changes, component tolerances, or internal component bonding?	Prior Acceptance; Open Outcome B	Prior Acceptance	Prior Acceptance
17	Function	Did any of the input or output tolerances (e.g., voltage, current, ripple, signal, thermal) change at any phase of operation?	Prior Acceptance; Open Outcome C	Prior Acceptance	Prior Acceptance
18	Function	Was any complex electronic hardware added or changed (see RTCA/DO-254 for the definition of complex electronic hardware)?	Prior Acceptance; Open Outcome D	Prior Acceptance	Prior Acceptance
19	Function	Did the change affect the bonding, conductivity/grounding aspects (e.g., instances, materials, coatings, installation, shield terminations, chassis changes) of the component?	Prior Acceptance; Open Outcome C	Prior Acceptance	Prior Acceptance
20	Function	Does the change include revision to any embedded software in the assembly?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
21	Environment	Does the change impact environmental interactions (e.g., do material changes affect susceptibility to environmental damage or introduce hazardous materials into the environment)?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
22	Reliability	Is the change aimed at correction of a reliability, durability, maintainability, or serviceability problem exposed during qualification/certification testing or inservice?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
23	Reliability	Does the change introduce new up-rated electronic component part(s)?	Concurrent Notification	Non- Configuration Change	Concurrent Notification

Question Number	Impact of Change	Question	Yes	No	Don't Know
24	Drawing	Does the change result in allocation of a new assembly part number, which would result in a change to the associated customer Source Control Drawing (SOCD) number?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
25	Drawing	Does the change add, delete, or amend reference data/information on assembly or component drawings delivered to the customer?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
56	Drawing	Does the change alter the format of assembly or component drawings [e.g., reproducing a paper drawing on Computer-aided Design (CAD)] delivered to the customer?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
27	Drawing	Does the change correct typographical errors on assembly or component drawings delivered to the customer?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
28	Drawing	Does the change correct text referenced on the drawing border of assembly or component drawings delivered to the customer?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
29	Drawing	Does the change update call-outs on drawings delivered to the customer, where obsolete processes or specifications have been superseded?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
30	Traceability	Does the change include any corrections to part marking on assemblies or components that will impact product traceability?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
31	Traceability	Does the change update the method of assembly or component part marking, but not the content?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
32	Traceability	Does the change update the assembly or component part marking to show supplementary information (e.g., addition of 2D matrix markings)?	Concurrent Notification	Non- Configuration Change	Concurrent Notification

Question Number	Impact of Change	Question	Yes	ON	Don't Know
33	Traceability	Will the change require tracking of the change by the customer?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
34	In-Service Effects	Will the change require retrospective in-service action to embody the change into equipment already delivered?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
35	In-Service Effects	Will the change require customer discontinuation of use of existing stock (e.g., scrapping or reworking of prealteration components)?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
36	In-Service Effects	Does the change impact or invalidate delivered, operation, maintenance, overhaul, or other technical publications?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
37	Manufacturability	Does the change impact a key characteristic (e.g., source, process, feature, surface finish, surface treatment) associated with the design of the assembly or component?	May be Prior Acceptance	Non- Configuration Change	May be Prior Acceptance
38	Manufacturability	Does the change impact a non-key characteristic associated with the design of the assembly or component (e.g., source, process, or feature that is not declared sensitive)?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
39	Manufacturability	Will the change adversely affect manufacturability (e.g., tightening of a tolerance range, removal of a manufacturing method or process)?	May be Prior Acceptance	Non- Configuration Change	May be Prior Acceptance
40	Manufacturability	Does the change relax a tolerance range to improve manufacturability?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
41	Manufacturability	Does the change add an alternative manufacturing method?	Concurrent Notification	Non- Configuration Change	Concurrent Notification

Question Number	Impact of Change	Question	Yes	No	Don't Know
42	Manufacturability	Manufacturability declared in the design definition without changing the control process?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
43	Manufacturability	Does the change include changes to supplier or sub-tier manufacturing facilities, including storage, packaging, etc., that imply the need for re-qualification of the manufacturing process for an assembly or component?	May be Prior Acceptance	Non- Configuration Change	May be Prior Acceptance
44	Test	Does the change affect the acceptance and/or qualification test content (e.g., the specification of the various tests)?	Prior Acceptance	Non- Configuration Change	Prior Acceptance
45	Test	Does the change affect the acceptance test schedule (e.g., the sequence in which tests are performed)?	Concurrent Notification	Non- Configuration Change	Concurrent Notification
46	Cost	Will the change affect unit price, fee costs, incentives, schedules, or deliveries of assemblies or components to the customer?	Open Question 47	Non- Configuration Change	Open Question 47
47	Cost	Will the change be beneficial overall to the customer?	Concurrent Notification	Prior Acceptance	Prior Acceptance

CHANGE IMPACT ANALYSIS (CIA) LOGIC TREE RESULTS OUTCOME TABLE - ELECTROMAGNETIC EFFECTS

Outcome A	Provide an explanation of the safety aspects; whether the electronic device returns to normal operation as it would have prior to the change.
Outcome B	Test or analyze to verify that susceptibility or emissions have not changed.
Outcome C	Test or analyze to verify that lightning protection, susceptibility, or emissions have not changed.
Outcome D	Provide an analysis in accordance with RTCA/DO-254.

Annex C (informative)
List of Notice of Change (NOC) data

Fields shown in bold with an asterisk (*) are mandatory; all other fields are optional.

No.	Data Field Title	Description	Data	Data Type	Data Size (in digits)	Comments
DOCUN	DOCUMENT IDENTIFICATION (Header)	der)				
-	Corporate Logo	Corporate logo of the originator	Logo	Alpha- numeric; jpg; gif	N/A	Logo should appear in upper left corner of form.
1	Form Title*	NOTICE OF CHANGE (NOC) (see 9116 for instructions)	Form title	Alpha- numeric	50 maximum	Title to appear at top of form.
1	Originator NOC Ref. No.*	Unique NOC reference number assigned by the originator in accordance with customer instructions	Numerals/lette rs	Alpha- numeric	4 minimum 20 maximum	
1a	Revision/Issue*	Document issue or level of document revision	Numerals/lette rs	Alpha- numeric	1 minimum 10 maximum	Assigned by the originator. Initial issue to be "-".
2	Customer NOC Ref. No.	Unique NOC cross reference number assigned by the customer	Numerals/lette rs	Alpha- numeric	4 minimum 20 maximum	Identify, if different from item No. 1.
2a	Revision/Issue	Document issue or revision level	Numerals/lette rs	Alpha- numeric	1 minimum 10 maximum	Assigned by the customer, if needed. Initial issue to be "-".
3	Page of Pages*	Sheet number and total number of sheets (paper form only)	No. of line items	Numeric	4 minimum 6 maximum	Pagination for printouts.

No.	Data Field Title	Description	Data	Data Type	Data Size (in digits)	Comments
TYPE (TYPE OF CHANGE					
		Requires Customer Acceptance (prior to implementation of this change)	Numerals/lette rs	Alpha- numeric	1 minimum 3 maximum	Check box; requires customer acceptance (see sections 4.2.1 and 4.2.2).
4	Type of Change*	Requires Customer Acceptance (changes have been implemented; need customer acceptance prior to delivery)	Numerals/lette rs	Alpha- numeric	1 minimum 3 maximum	Check box; requires customer acceptance (see sections 4.2.2 and 4.2.3).
		Notification Only (changes have been implemented concurrent with this notification - acknowledgement of receipt is requested)	Numerals/lette rs	Alpha- numeric	1 minimum 3 maximum	Check box; notification only (see section 4.2.3).
വ	Priority – Customer Response	EmergencyUrgentRoutine	Numerals/lette rs	Alpha- numeric	1 minimum 3 maximum	Check box.
9	Part Status	Pre-Qualified (Development)Post-Qualified (Production)Other (please specify)	Numerals/lette rs	Alpha- numeric	1 minimum 3 maximum	Check box.
ORIGII	ORIGINATORS INFORMATION					
7	Date of Submittal*	Enter the date the NOC was submitted to the customer	Numerals/lette rs	Date	8 minimum 10 maximum	YYYY/MM/DD format.
8	Requested Response Date*	Identify the date that a response is requested from the customer to avoid delay in delivery	Numerals/lette rs	Date	8 minimum 10 maximum	YYYY/MM/DD format.
6	Originator's Company*	Identification of the NOC originator	Prime supplier name	Alpha- numeric	50 maximum	
10	Originator's CAGE Code*	CAGE code or vendor code assigned	Prime supplier	Alpha-	20	CAGE code number or

No.	Data Field Title	Description	Data	Data Type	Data Size (in digits)	Comments
		by the customer	CAGE code	numeric	maximum	vendor code assigned by the customer.
11	Originator's Address*	Address that should be used for correspondence, if electronic means is not viable	Mailing address	Alpha- numeric	50 maximum	Electronic correspondence is preferred.
12	Originator/Contact*	Name of point of contact	Name	Alpha- numeric	100 maximum	May be combined with 12a, 12b, and 12c (paper form only).
12a	Function or Department*	Contacts title	Numerals/lette rs	Alpha- numeric	50 maximum	
12b	Direct Telephone No.*	Phone number of the point of contact	Numerals	Alpha- numeric	25 maximum	
12c	E-mail*	E-mail address of the point of contact	E-mail address	Alpha- numeric	30 maximum	
13	Originator's Procurement Agent	Name of originator's Procurement Agent	Name	Alpha- numeric	100 maximum	May be combined with 13a, 13b, and 13c (paper form only).
13a	Function or Department	Procurement Agent	Numerals/lette rs	Alpha- numeric	50 maximum	
13b	Direct Telephone No.	Phone number of the originator's Procurement Agent	Numerals	Alpha- numeric	25 maximum	
13c	E-mail	E-mail address of the originator's Procurement Agent	E-mail address	Alpha- numeric	30 maximum	
CUSTO	CUSTOMER'S INFORMATION					
14	Customer's Company*	Identification of recipient of NOC	Prime customer's name	Alpha- numeric	50 maximum	
15	Customer's Address*	Address that should be used for correspondence, if electronic means is not viable	Mailing address	Alpha- numeric	50 maximum	Electronic correspondence is preferred.

No.	Data Field Title	Description	Data	Data Type	Data Size (in digits)	Comments
16	Customer/Contact*	Name of customer point of contact	Name	Alpha- numeric	100 maximum	May be combined with 16a, 16b, and 16c (paper form only).
16a	Function 0 Department*	or Customer contact's title	Numerals/lette rs	Alpha- numeric	50 maximum	
16b	Direct Telephone No.*	Phone number of the customer's point of contact	Numerals	Alpha- numeric	25 maximum	
16c	E-mail*	E-mail address of the customer's point of contact	E-mail address	Alpha- numeric	30 maximum	
17	Customer/Procurement Agent	Customer's Procurement Agent contact information	Name	Alpha- numeric	100 maximum	May be combined with 17a, 17b, and 17c (paper form only).
17a	Function or Department	Procurement Agent	Numerals/lette rs	Alpha- numeric	50 maximum	
17b	Direct Telephone No. P	Phone number of the customer's Nun Procurement Agent	Numerals Alpha- numer	ic	25 maximum	
17c	E-mail	E-mail address of the customer's Procurement Agent	E-mail address	Alpha- numeric	30 maximum	
IDEN	IDENTIFICATION OF PRODUCT/ARTICLE AFFECTED	ARTICLE AFFECTED				
18	Program N p	Name/title program/project/model affected by rs the NOC	Numerals/lette Alpha- rs numer	ic	ıximum	Regulatory requirements for safety and airworthiness shall be addressed.
19	Customer Part No.* L	Lowest level customer part number Part affected by the NOC custo	number ned by omer	jc	iinimum ximum	If known by originator.
20	Customer Source S Control Drawing d (SOCD) No.*	SOCD number/specification SOC document or equivalent affected by assi the NOC	SOCD number Alpha- assigned by numer customer	ic	ainimum ximum	If known by originator.
21	Supplier Part No.*	Lowest (and highest, if applicable) level supplier part number affected	Part number assigned by the	Alpha- numeric	1 minimum 25	Lowest level part number supplied to the

No.	Data Field Title	Description	Data	Data Type	Data Size (in digits)	Comments
		by the NOC	supplier		maximum	customer.
22	Supplier Drawing No. and Rev.*	Drawing number of the supplier's lowest level part number affected by the NOC	Drawing number assigned by the supplier	Alpha- 1 n numeric 25 ma	1 minimum Ide 25 maximum	Identify, if different from item No. 21.
23	Part Name*	Part name/description	Nomenclature	Alpha- 2 n numeric 50 ma	2 minimum 50 maximum	
DES(DESCRIPTION OF CHANGE					
24	Description of Change and Rationale*	Describe the nature of the change	Numerals/lette rs	Alpha- numeric π	2 000 Must maximum complete how of Applications including aroun aroun	Must be concise and complete. Identify when and how change will take effect. Applicability to parts in service shall be addressed, including part repair turn around time.
25	Effectivity of Change*	Provide the reason for the change	Numerals/lette rs	Alpha- numeric π	2 000 Short maximum par cha cha ide cha	Should be concise; note if part number will be changed. If insufficient characters in Block No. 24, identify when and how change will take effect.
26	List of Attached Data*	Identify all supporting data/documentation accompanying the NOC, including any revision to Acceptance Test Procedures, etc.	Numerals/lette rs	Alpha- numeric m	Data justi; supp supp test draw 2 000 shee maximum data Regu Regu safet	Data/documentation justifying the change shall be supplied with the NOC (e.g., test results, redlined drawings, specification sheets, and any required data for substantiation to Regulatory requirements). Regulatory requirements for safety and airworthiness shall be addressed.

	H	a, n				n,					
Comments	quality personnel approving the disposition, including signature block(s) for customer al aviation authority)	May be combined with 27a, 27b, and 27c (paper form only).		YYYY/MM/DD format.	Password may be required.	May be combined with 28a, 28b, and 28c (paper form only).		YYYY/MM/DD format.	Password may be required.		Check box.
Data Size (in digits)	ıcluding sign	ninimum ximum	50 maximum	ninimum Ximum	1 minimum 25 maximum	1 minimum 25 Smaximum	50 maximum	8 minimum 10 maximum	1 minimum 25 maximum		1 minimum 3 maximum
Data Type	sition, ir	1 n 25 ma	50 ma	8 n 10 ma	1 n 25 ma	1 1 m	ш	8 ^{II}	1 1 n		1 ₁ 3
Data	ng the dispos	Alpha- numeric	Alpha- numeric	Date	Alpha- numeric	Alpha- numeric	Alpha- numeric	Date	Alpha- numeric		Alpha- numeric
Data	rsonnel approvin authority)	Numerals/lette rs	Numerals/lette rs	Numerals/lette rs	Digital signature (paperless)	Numerals/lette rs	Numerals/lette rs	Numerals/lette rs	Digital signature (paperless)		Numerals/lette rs
Description	iginator; design and nment agency, nation	Initiator of the NOC (plus signature Nin the paper form)	N	7 7	Signature of the originator s s	Level of involvement contractually Ndefined (plus signature in the paper r form)	N	A 1	Signature of the customer s		Identify if the NOC is: Accepted Accepted with Changes
Data Field Title	APPROVAL AND ACKNOWLEDGEMENT Typically includes signatures of the or approval/acknowledgement (e.g., gover	Originator's Name*	Function or Department*	Date of Approval*	Signature	Customer's Name*	Function or Department*	Date of Disposition*	Signature	CUSTOMER DISPOSITION	Disposition*
No.	APPRC Typica approv	27	27a 	27b 1	27c 9	788	28a 1	28b 1	28c 3	CUSTO	29

No.	Data Field Title	Description	Data	Data Type	Data Size (in digits)	Comments
		 Disapproved 				
30	Reason for Disapproval or Description of Customer Required Changes	Reason for Disapproval Provide explanation for disapproval or Description of of NOC or description of the Customer Required changes required for acceptance Changes	Numerals/lett rs	e Alpha- numeric m	2 000 Sho	should be concise.

Annex D

(informative)

Sample Notice of Change (NOC) form

NOTE The following is an example of a linear formatted NOC form for use as a guideline. The numbers indicated in the 'example' form refer to the data fields defined in Annex C.

	1 of 4	
N.	otice of Change (NOC) See 9116 for instructions	
Originator NOC Ref No.* 1a. Revision/Issue*	2. Customer NOC Ref. No. 2a. Revision/ls	sue
Type of Change Type of Change*		
. Type of Change		
Requires Customer Acceptance	(Prior to implementation of this change)	
Requires Customer Accentance	(Changes have been implemented - needs customer acceptance prior to delivery)	
	(orlanges have been implemented - needs easterner acceptance prior to derivery)	
	implemented concurrent with this notification - Acknowledgement of receipt is requested)	
(Applicable only if change authority has be Priority - Customer Response	6. Part Status	
П г	D But Overlifted (Bernelson and)	
Emergency	Pre-Qualified (Development)	
Urgent	Post-Qualified (Production)	
Routine	Other (please specify)	\neg
Routine	Other (please specily)	
Note to 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		
Originator's Information Date of Submittal (YYYY/MM/DD)*		
	18 Dequested Desponse Date (VVVV/MM/DD)*	
. Date of Submittal (1111/MM/DD)	Requested Response Date (YYYY/MM/DD)*	
. Originator's Company*	Requested Response Date (YYYY/MM/DD)* 10. Originator's CAGE Code*	
. Originator's Company*		
. Originator's Company* 1. Originator's Address*		
. Originator's Company*		
Originator's Company* Originator's Address* Originator/Contact*		
. Originator's Company* 1. Originator's Address*		
Originator's Company* Originator's Address* Originator/Contact* a. Function or Department*		
Originator's Company* Originator's Address* Originator/Contact*		
2. Originator's Company* 2. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.*		
Originator's Company* Originator's Address* Originator/Contact* a. Function or Department*		
2. Originator's Company* 2. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.*		
2. Originator's Company* 2. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.*		
1. Originator's Company* 1. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.* 2c. E-mail*		
1. Originator's Company* 1. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.* 2c. E-mail*		
. Originator's Company* 1. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.* 2c. E-mail* 3. Originator's Procurement Agent		
. Originator's Company* 1. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.* 2c. E-mail* 3. Originator's Procurement Agent		
1. Originator's Company* 1. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.* 2c. E-mail* 3. Originator's Procurement Agent 3a. Function or Department		
1. Originator's Company* 1. Originator's Address* 2. Originator/Contact* 2a. Function or Department* 2b. Direct Telephone No.* 2c. E-mail* 3. Originator's Procurement Agent 3a. Function or Department		

Notice of Chan	ige (NOC)
See 9116 for instruc	ctions
1. Originator NOC Ref No.* 1a. Revision/Issue*	Customer NOC Ref. No. 2a. Revision/Issue
Customer Information	
14. Customer's Company*	
15. Customer's Address*	
16. Customer/Contact*	
16a. Function or Department*	
·	
16b. Direct Telephone No.*	
TOOL SHOOT TOOLS NO.	
16c. E-mail*	
TOC. L-Hall	
17. Customer/Procurement Agent	
17. Customer/Frocurement Agent	
47. 5. 11. 0. 1.	
17a. Function or Department	
17b. Direct Telephone No.	
176. Direct Telephone No.	
The offeet telephone No.	
17c. E-mail	
17c. E-mail	
17c. E-mail Identification of Product/Article Affected	
17c. E-mail Identification of Product/Article Affected	
Identification of Product/Article Affected 18. Program	
Identification of Product/Article Affected 18. Program	
Identification of Product/Article Affected 18. Program 19. Customer Part No.*	
Identification of Product/Article Affected 18. Program 19. Customer Part No.*	
Identification of Product/Article Affected 18. Program 19. Customer Part No.* 20. Customer Source Control Drawing (SOCD) No.*	
Identification of Product/Article Affected 18. Program 19. Customer Part No.*	
Identification of Product/Article Affected 18. Program 19. Customer Part No.* 20. Customer Source Control Drawing (SOCD) No.*	
Identification of Product/Article Affected 18. Program 19. Customer Part No.* 20. Customer Source Control Drawing (SOCD) No.*	
Identification of Product/Article Affected 18. Program 19. Customer Part No.* 20. Customer Source Control Drawing (SOCD) No.*	
Identification of Product/Article Affected 18. Program 19. Customer Part No.* 20. Customer Source Control Drawing (SOCD) No.*	

Notice	of Change	(NOC)	
. Originator NOC Ref No.* 1a. Revision/Issue*	See 9116 for instructions	2. Customer NOC Ref. N	No. 2a. Revision/Issue
Description of Change			
4. Description of Change and Rationale*			
5. Effectivity of Change*			
6. List of attached data*			

	, and the second	lotice of C	hango	(NOC)		
	IN	See 9116	for instructions	(NOC)		
Originator NOC Ref No.*	1a. Revision/Issue*			2. Customer NOC Ref. No.	2a. Revision/Issu	ıe
		_				
Approval and Ackno	owledgemen	nt				
27. Originator's Name*	o mougomon					
27a. Function or Department*						
27b. Date of Approval (YYYY/M	IM/DD)*					
27c. Signature						
28. Customer's Name*						
28a. Function or Department*						
28b. Date of Disposition (YYYY	//MM/DD)*					
28b. Date of Disposition (YYYY	//MM/DD)*					
28b. Date of Disposition (YYYY)	//MM/DD)*					
, ,	//MM/DD)*					
28c. Signature						
28c. Signature Customer Dispositi						
28c. Signature Customer Disposition*						
28c. Signature Customer Dispositi						
28c. Signature Customer Disposition*	on					
Customer Disposition* Accepted Accepted with ch	on					
Customer Dispositions Dispositions Accepted Accepted with ch	on					
Customer Disposition* Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				
Customer Dispositions Dispositions Accepted Accepted with ch	on	mer Required Changes				



British Standards Institution (BSI)

BSI is the national body responsible for preparing British Standards and other standards-related publications, information and services.

BSI is incorporated by Royal Charter. British Standards and other standardization products are published by BSI Standards Limited.

About us

We bring together business, industry, government, consumers, innovators and others to shape their combined experience and expertise into standards -based solutions.

The knowledge embodied in our standards has been carefully assembled in a dependable format and refined through our open consultation process. Organizations of all sizes and across all sectors choose standards to help them achieve their goals.

Information on standards

We can provide you with the knowledge that your organization needs to succeed. Find out more about British Standards by visiting our website at bsigroup.com/standards or contacting our Customer Services team or Knowledge Centre.

Buying standards

You can buy and download PDF versions of BSI publications, including British and adopted European and international standards, through our website at bsigroup.com/shop, where hard copies can also be purchased.

If you need international and foreign standards from other Standards Development Organizations, hard copies can be ordered from our Customer Services team.

Subscriptions

Our range of subscription services are designed to make using standards easier for you. For further information on our subscription products go to bsigroup.com/subscriptions.

With **British Standards Online (BSOL)** you'll have instant access to over 55,000 British and adopted European and international standards from your desktop. It's available 24/7 and is refreshed daily so you'll always be up to date.

You can keep in touch with standards developments and receive substantial discounts on the purchase price of standards, both in single copy and subscription format, by becoming a **BSI Subscribing Member**.

PLUS is an updating service exclusive to BSI Subscribing Members. You will automatically receive the latest hard copy of your standards when they're revised or replaced.

To find out more about becoming a BSI Subscribing Member and the benefits of membership, please visit bsigroup.com/shop.

With a **Multi-User Network Licence (MUNL)** you are able to host standards publications on your intranet. Licences can cover as few or as many users as you wish. With updates supplied as soon as they're available, you can be sure your documentation is current. For further information, email bsmusales@bsigroup.com.

BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

Revisions

Our British Standards and other publications are updated by amendment or revision.

We continually improve the quality of our products and services to benefit your business. If you find an inaccuracy or ambiguity within a British Standard or other BSI publication please inform the Knowledge Centre.

Copyright

All the data, software and documentation set out in all British Standards and other BSI publications are the property of and copyrighted by BSI, or some person or entity that owns copyright in the information used (such as the international standardization bodies) and has formally licensed such information to BSI for commercial publication and use. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI. Details and advice can be obtained from the Copyright & Licensing Department.

Useful Contacts:

Customer Services

Tel: +44 845 086 9001

Email (orders): orders@bsigroup.com
Email (enquiries): cservices@bsigroup.com

Subscriptions

Tel: +44 845 086 9001

Email: subscriptions@bsigroup.com

Knowledge Centre

Tel: +44 20 8996 7004

Email: knowledgecentre@bsigroup.com

Copyright & Licensing

Tel: +44 20 8996 7070 Email: copyright@bsigroup.com

