



DPC: 15 / 30327600 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: + 44 (0)20 8996 9000

Fax: + 44 (0)20 8996 7400

www.bsigroup.com

Date: 30 June 2015

Origin: European

Latest date for receipt of comments: 29 September 2015

Project No. 2015/01769

Responsible committee: ACE/1 International and European Aerospace Policy and Processes

Interested committees:

Title: Draft BS EN 9253 Aerospace series - Surveillance of Design Suppliers

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

**WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD.
THIS DRAFT IS NOT CURRENT BEYOND 29 September 2015**

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

No copying is allowed, in any form, without prior written permission from BSI except as permitted under the Copyright, Designs and Patent Act 1988 or for circulation within a nominating organization for briefing purposes. Electronic circulation is limited to dissemination by e-mail within such an organization by committee members.

Further copies of this draft may be purchased from BSI Shop <http://shop.bsigroup.com> or from BSI Customer Services, Tel: + 44(0) 20 8996 9001 or email cservices@bsigroup.com. British, International and foreign standards are also available from BSI Customer Services.

Information on the co-operating organizations represented on the committees referenced above may be obtained from <http://standardsdevelopment.bsigroup.com>

Responsible Committee Secretary: Mr Peter Slot (BSI)

Direct tel: 020 8996 7147

E-mail: peter.slot@bsigroup.com

Introduction

This draft standard is based on European discussions in which the UK has taken an active part. Your comments on this draft are welcome and will assist in the preparation of the consequent British Standard. Comment is particularly welcome on national, legislative or similar deviations that may be necessary.

Even if this draft standard is not approved by the UK, if it receives the necessary support in Europe, the UK will be obliged to publish the official English Language text unchanged as a British Standard and to withdraw any conflicting standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with reasons) or positive vote on this draft.

Submission of Comments

- The guidance given below is intended to ensure that all comments receive efficient and appropriate attention by the responsible BSI committee. **Annotated drafts are not acceptable and will be rejected.**
- All comments must be submitted, preferably electronically, to the Responsible Committee Secretary at the address given on the front cover. Comments should be compatible with version 6.0 or version 97 of Microsoft Word for Windows, if possible; otherwise comments in ASCII text format are acceptable. **Any comments not submitted electronically should still adhere to these format requirements.**
- All comments submitted should be presented as given in the example below. Further information on submitting comments and how to obtain a blank electronic version of a comment form are available from the BSI website at: <http://drafts.bsigroup.com/>

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
------------------	-------------------------------

1	2	(3)	4	5	(6)	(7)
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/ Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

Study n°: **WG12**

Draft n°: **Final**

Date: **Jan 08th, 2015** Step n°:

Ref.: **xxx**

ENGLISH VERSION

Aerospace series
Surveillance of Design Suppliers

Série aérospatiale
(Size 10 points, bold type)

Luft- und Raumfahrt
(Size 10 points, bold type)

Warning

This document is NOT an ASD Standard. It is distributed for review and comment. It is subject to change without notice and may NOT be referred to as an ASD Standard.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Author: Y. QUINIOU (Airbus) / S. GUMUS (Turkish Aerospace Industries)

E-mail: youenn.quiniou@airbus.com / sgumus@tai.com.tr

Contents

0	Introduction.....	6
1	Scope	6
2	Normative references	6
3	Terms, definitions and abbreviations	6
4	Design Supplier Surveillance	10
4.1	Purpose	10
4.2	Requirements	11
4.2.1	Regulatory environment	11
4.2.2	Requirements of this Standard	11
4.3	Process steps	12
4.3.1	Surveillance scope definition / applicable Part 21 obligations	13
4.3.2	Design Supplier DCL evaluation	13
4.3.3	Design Supplier Criticality evaluation	14
4.3.4	Define Surveillance Typology	15
4.3.5	Perform Surveillance actions	16
4.3.6	Supplier Control Review	17
4.4	Key Process Deliverables	18
5	Responsibility	19
5.1	Head of Engineering:	19
5.2	Design Task responsible:	19
5.3	Design supplier control manager:	19
6	Resources	20
6.1	Provision of resources	20
6.2	Competence, training and awareness	20
7	Realisation	21
7.1	Surveillance baseline	21
7.2	Compliance evaluation	21
7.3	DCLx Performance evaluation	22
8	Monitoring and Control	23
9	Archiving / Record keeping	23
	Appendix A	24
	A.1 DCL Definition	24
	A.2 Compliance Statement (DCLx) Definition	25
	A2.1 DCL01 – Development Project Management	25
	A2.2 DCL02 – Failures, malfunctions and defects (Event reporting)	25
	A2.3 DCL03 – Coordination between design and production	26
	A2.4 DCL04 – Product Non Conformity Management	27
	A2.5 DCL05 – Investigation and certification testing	27
	A2.6 DCL06 – Document & data retention	28
	A2.7 DCL07 – Configuration management	28
	A2.8 DCL08 – Organisation & Signatory Management	29
	A2.9 DCL09 – Acceptability & Performance of Airworthiness deliverables	29
	A2.10 DCL10 – Acceptability & Performance of Technical deliverables	30
	A2.11 DCL11 – Sub-Tier Management	30
	A2.12 DCL12 – Continuing Airworthiness Management (ICA)	31
	Appendix B	33
	B.1 DOA Criticality Matrix	34
	B.2 “Severity as Designed” Index	35
	B.2.1 Definition	35
	B.2.2 Severity as designed	35
	B.2.2.1 Scope: “a”	35
	B.2.2.2 Deliverable Criticality: “b”	36
	B.2.2.3 Level of Authority Granted: “c”	36
	B.2.2.4 Purchaser Capability to Detect Issues: “d”	36
	B.2.3 “Confidence in Supplier” Index	37
	B.2.3.1 “Tier 1” have “Tier N” for Engineering Deliverable: “e”	37
	B.2.3.2 Design supplier Organization Compliance: “f”	37

B.2.3.3 Supplier Report of his Engineering Performance: "g"	38
B.2.3.4 Purchaser View of Supplier Engineering Performance: "h"	39
B.2.3.5 Deliverable Level / Issues: "i"	39
B.2.4 Use of the "Design Supplier Criticality"	39
Appendix C	41
Appendix D	44
D.1 DCL01 – Development Project Management	44
D.2 DCL02 - Failures, malfunctions and defects (Event reporting)	44
D.3 DCL03 – Coordination between design and production	45
D.4 DCL04 – Non Conformity Management	45
D.5 DCL05 – Investigation and certification testing	45
D.6 DCL06 – Document & data retention	46
D.7 DCL07 – Configuration management	46
D.8 DCL08 – Organisation & Signatory Mgt	46
D.9 DCL09 – Acceptability & Performance of Airworthiness deliverables	47
D.10 DCL10 – Acceptability & Performance of Technical deliverables	47
D.11 DCL11 – Sub-Tier Management	48
D.12 DCL12 – Continuing Airworthiness Management (ICA)	48
Appendix E	49
Appendix F	50
F.1 FIXED ZONE	51
F.1.1 DESIGN / CERTIFICATION DELIVERABLES	51
F.1.2 DCLx / PART 21 REFERENCE	51
F.1.3 DOA PROCEDURE REFERENCE	51
F.1.4 DOA "KEY CHECK POINT" AS PER DIRECT AP	51
F.2 ACTIVE ZONE	51
F.2.1 CONTENT OF THE CELLS	52
F.2.2 INDEPENDENT MONITORING RAG	52
F.2.3 ORGANISATION COLUMN	52
F.2.4 PROCEDURES COLUMN	52
F.2.5 TOOLS COLUMN	53
F.3 INDEPENDENT MONITORING NOTIFICATION FORM	53
F.4 MATURITY	53
F.5 DASHBOARD - MAIN ISSUES MGT	55
F.6 DOA Score card Link with DCLx	55

Tables

Table 1- Compliance statements (DCLx)	13
Table 2 - Surveillance report GAR	17
Table 3 – Nature and content of surveillance deliverables	18
Table 4 - Focussed Part 21 Requirement for Surveillance	24
Table 5 – Applicable Compliance Statements (DCLx)	25
Table 6 – DOA Criticality Matrix	34
Table 7 – Number of surveillance samples to be performed.....	42
Table 8 – Means to be considered for Surveillance	43

Figures

Figure 1: Design Supplier Surveillance Mechanism.....	10
Figure 2 - Surveillance Process workflow	12
Figure 3: Design Supplier Criticality index - Zoning	14
Figure 4: Surveillance means selection tree	15
Figure 5: Design Supplier Criticality – Zoning	33
Figure 6: Design Supplier Control action objectives	40
Figure 7: Surveillance preferences.....	41
Figure 8 : Overall Surveillance result	49
Figure 9 : Detailed Surveillance result.....	49
Figure 10 : DOA IM Information capture mechanisms	50
Figure 11 : DOA IM Score Card	50
Figure 12 : DOA IM Score Card Maturity Matrix.....	54
Figure 13 : DOA Score Card link with DCLx	55

0 Introduction

This DOA Standard has been developed by a joint effort of European Industry through the ASD DOA Working Group in order to:

- Provide guidance related to the assessment and surveillance of organisations contracted to handle design and/or airworthiness activities on behalf of design organisation approval holders (TC, changes to TC, STC, repair design and/or ETSOA certifications),
- Take benefit and share best practices among European Industry,
- Use common criteria for design supplier assessment and surveillance

1 Scope

This document establishes general principles and specifies a risk based method for assessment and surveillance of organizations contracted to generate design deliverables (Technical, Airworthiness or Independent Monitoring) on behalf of a Design Organization Approval Holder (DOA holder).

It is applicable at any level of Purchaser (Tier n) / Design Supplier's (Sub Tier n) position in the supply chain of a DOA Holder.

2 Normative references

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are quoted at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EU n° 748/2012 Annex 1, Part 21	<i>Certification of aircraft and related products, parts and appliances, and of design and production organisations</i>
EMAR 21	<i>Certification of military aircraft and related products, parts and appliances and design and production organisations</i>
EN 9130	<i>Record retention</i>
ICAO Annex 19	<i>Safety Management</i>
ISO/EIC 2589-4	<i>Sampling procedures for inspection by attribute – Procedure for assessment of declared quality levels</i>

When there is a conflict between this standard and any other normative reference, the present standard, developed to support compliance to European regulation, prevails except when the design supplier elects to comply with more restrictive requirements.

3 Terms, definitions and abbreviations

For the purposes of this standard, the following terms, definitions and abbreviations apply:

3.1

assessment

structured method to evaluate an organization's capability to carry out specific activities. It determines the organization's current strengths and weaknesses against a set of criteria defining the target condition. It provides essential data to improve the organisation's performance, to evaluate the level of risk and to implement action plans.

3.2

audit

Systematic, independent and documented process for obtaining *audit evidence* and evaluating it objectively to determine the extent to which *audit criteria* are fulfilled.

3.3

certification tests

Tests necessary to demonstrate compliance with the applicable type-certification basis and environmental protection requirements

3.4

continuous operational monitoring (COM)

The continuous measurement of the design supplier delivery performance, measured during management and acceptance of the design supplier deliverables

3.5

declared compliance level (DCL)

Metric reflecting compliance and performance level of a design supplier over the Part 21 regulatory obligation and essential business requirements applicable to its contracted activities. The DCL is segmented in 12 Surveillance Topics^(xx) (DCLx) that are the target of surveillance for any Purchaser over its design Suppliers.

3.6

design supplier

organisation contracted by a **purchaser**^(3.3) for generation (authoring and release) of **DOA deliverables**^(3.4):

- *Authoring design source data for equipment, system, or structure, to be included in the Type Design of an TC Holder programme to be approved through either the Type Certification, STC, or changes to TC process;*
- *Handling tests and authoring test reports for demonstrating compliance to applicable certification requirements (airworthiness and environmental protection);*
- *Authoring data for product certification purpose (e.g. analysis reports, tests programs)*
- *Authoring design source data for repairs to equipment, system, or structure;*
- *Authoring data for Manuals and/or Instructions for Continued Airworthiness;*
- *Developing tools for Aircraft design and/or airworthiness activities.*

NOTE: A design supplier may alternatively be referred to as a DOA supplier.

3.7

design supplier internal surveillance

Activities performed by the design supplier to monitor the compliance and the performance of its own operations as well as the oversight of its own sub-tiers.

3.8

DOA deliverable

All data supplied for **products**^(Error! Reference source not found.), **parts and appliances**^(Error! Reference source not found.) corresponding to either technical design source data, their Airworthiness validation or the independent monitoring of the Design Assurance System (DAS) activities

3.9

DOA holder

TC holder, STC holder, ETSOA holder, or change/repair design approval holder organisation.

3.10

DOA compliance table

mapping of the design supplier's top level procedures provided by the Design supplier and recognized by the Purchaser, to map the Supplier DOA top level internal procedures used to produce the contracted activities (DOA deliverables).

NOTE: The compliance declaration provided by the design supplier supports the TC Holder DOA compliance demonstration. The DOA Compliance Table shall be kept up to date by the supplier to provide the visibility that the supplier continuously covers and internally surveys all applicable DOA Subjects and secures adequacy and adherence of its internal procedural referential.

3.11

design supplier Criticality

metric derived from a failure mode effect and analysis (FMEA) performed on design organizations. It is constituted of two indexes (severity and confidence) to formalize an element of the Supplier Design risk picture focused on Organizational, Technical, Airworthiness or Independent Monitoring capabilities.

3.12

design supplier surveillance

the regular evaluation of the Design Supplier Criticality^(xx) **and** the independent monitoring^(3.x) confirmation that Purchaser Controls are in Place and Effective for the acceptance of the design supplier deliverables.

NOTE: Engineering judgment based, the Design Supplier Criticality evaluation may be substantiated as relevant by the implementation of a structured surveillance plan.

3.13

independent monitoring

Ref Part 21A.239 (a).3

3.14

parts and appliances

any instrument, equipment, mechanism, part, apparatus, appurtenance, software or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight; it includes parts of an airframe, engine or propeller, or equipment used to maneuver the aircraft from the ground.

3.15

purchaser

design organization within the supply chain of the **DOA Holder**^(3.1) which contracts and shall survey a **Design supplier**^(3.2).

3.16

sub-tiers

design organizations contracted by a **design supplier**^(3.2i) for the sub-contracting/realization of contracted activities for a purchaser.

3.17

surveillance topics

Surveillance Topics (**DCLx**) is an operational Design Organisation Approval (DOA) Topic commonly used in the Aerospace Design Industry, linked with Part 21 obligations. DCLx are subset of the Declared Compliance Level^(xx) whose objective is to provide guidance for the surveillance of design suppliers, when applicable to the contracted activity.

3.13 Abbreviations

COM	Continuous Operational Monitoring
CTQ	Critical to Quality
DAS	Design Assurance System
DCL	Declared Compliance Level
DOA	Design Organization Approval
DO/PO	Design Organization / Production organization
EAQG	European Aviation Quality Group
EASA	European Aviation Safety Agency
EC	European Commission
ETSOA	European Technical Standard Order Authorization
FMEA	Failure Mode Effect Analysis
IM	Independent Monitoring
ISO	International Organization for Standardization
MoC	Means of Compliance
OEM	Original Equipment Manufacturer
POA	Production Organization Approval
PRM	Progress Review Meeting
QMS	Quality Management System
SDP	System Development Plan
SOW	Statement of Work
STC	Supplemental Type Certificate
TC	Type Certificate
TRM	Technical Review meeting

4 Design Supplier Surveillance

4.1 Purpose

With the ultimate objective of **Safe Design**, the Design Supplier **Surveillance** principles defined in this standard goes beyond typical conformity surveillance principles. It specifies a **risk based** approach defined to sustain the **Purchaser acceptance** of its Design Supplier **deliverables**.

This standard:

- Defines the mechanism to ascertain whether Purchaser **controls** over its Design Suppliers deliverable acceptance are **in place and effective**, providing visibility of protection actions when necessary.
- Defining an optimized **Surveillance objectives** (DCLx) applicable to the Design Supplier activities and establishing the supplier compliance and performance status versus EASA Part 21 and EMAR 21 Design Organization Approval **Obligations** and main Purchaser operational Requirements
- Formalizes the risk based Engineering Judgment in a metric called **Design Suppliers Criticality** that need to be regularly evaluated,
- Provides structured means to possibly **substantiate** the Purchaser **Engineering Judgment**,

The surveillance mechanism (Plan – Do – Check – Act) consists in regularly performing the surveillance cycle presented in Fig 1 below:

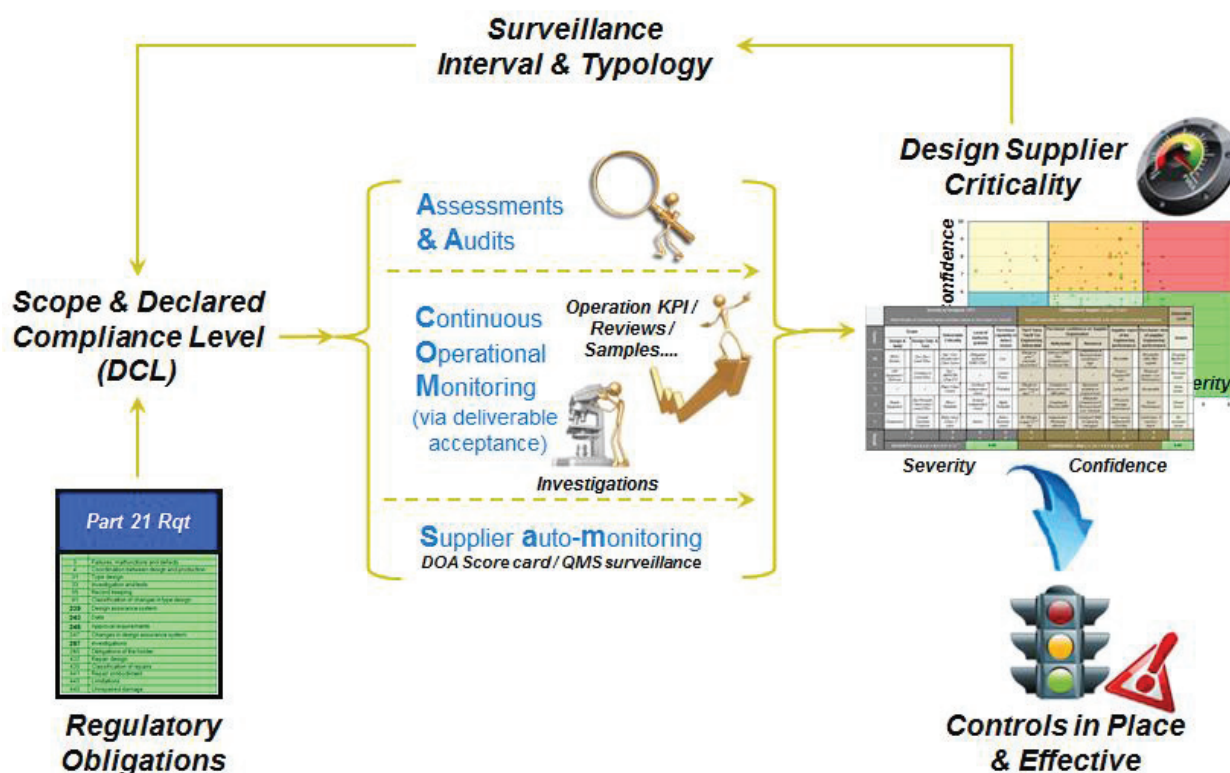


Figure 1: Design Supplier Surveillance Mechanism

As an integrated risk-performance management system derived from ISO 2859-4, the application of this standard reinforces the **Design Assurance System** (DAS) of the DOA Holders **over** their **Supply Chain**. It focusses efforts where it matters, enabling the re-use of existing data and supporting both Purchasers and Design Suppliers performance improvement.

4.2 Requirements

4.2.1 Regulatory environment

This standard supports compliance to the following requirements of European Commission Regulation (EC) N° 748/2012 Annex 1, Part 21. It is applicable to all types of design organisations involved in TC / STC Holder activities.

- 21A.239 Design assurance system
- 21A.245 Approval requirements
- 21A.265 Obligations of the holder

4.2.2 Requirements of this Standard

REQ 01.00: The Purchaser shall scope the surveillance of its design supplier using the **Declared Compliance Level** (DCL) of this standard and the associated **Surveillance Topics** (DCLx) defined in **Annex A**.

REQ 02.00: Using his best **Engineering Judgment**, the Purchaser shall evaluate risks, compliance and performance of his design suppliers, versus business and regulatory requirements, accommodating Product and Design Organization complexity, by the **regular evaluation** of the **Design Supplier Criticality** defined in **Annex B**

REQ 03.00: When **Design Supplier Criticality** is not at an acceptable level (confidence index greater than six (6)), the Purchaser shall put in place the necessary **Protections** and **Controls** (sample, checks, ... Level of Involvement) to ensure an adequate **acceptance** of the design supplier **Design deliverables**.

REQ 04.00: At the **frequency** driven the **Design Supplier Criticality** defined in **Annex B**, and not exceeding 3 years, the Purchaser shall perform an independent monitoring review confirming whether the controls over the Design Suppliers are **"In Place and Effective"**, ie confirming:

- The design supplier risk level is acceptable against Airworthiness and Business objectives,
- The control and efforts placed in the acceptance of the design supplier deliverables are adequate,

REQ 05.00: Using operational evidences, the design supplier **surveillance** by the Purchaser shall seek for **contradiction** of the Design Supplier **Declared Compliance Level** (DCL), so that:

- Evidenced contradiction of compliance may lead to a focused recovery and risk management, or
- Surveillance status that does not contradict compliance may enable the Purchaser to maintain its confidence, at a defined risk level.

REQ 06.00: To refine a **design supplier criticality**, when a Purchaser decides to structure the substantiation of his **Engineering Judgment**, the content and depth of the **structured surveillance plan** shall be defined function of the scope surveyed and the statistical representativeness of the processes surveyed:

- When **continuous evidence** of performance and control information is available: One-off **Process confirmation** is sufficient to ascertain compliance.
- When a limited and **discrete evidence** of data is made available (partial data availability): **Samples** (dimensioned by ISO 2859-4) within available operational data shall be performed to ascertain process compliance.
- Over **lack** of reliable operational **evidence** during 3 years, **Assessment, Audit or Investigation** should be conducted in an attempt to confirm or contradict the DCL.

REQ 07.00: DOA Compliance Table shall be maintained up to date by the design supplier to cover the applied top level DOA procedures relevant to the contracted activities, and provided to the Purchaser, in support of the DOA compliance demonstration of the DOA Holder.

REQ 08.00: When a design supplier organisation is working in a **"One Off"** development or no longer working on DOA deliverables, for given products, part and appliance, it may be considered as a **"dormant"** design supplier and its **surveillance "suspended"**. In case the design supplier would have resumed its supply of deliverables, the surveillance shall be re-initiated accordingly.

4.3 Process steps

Risk based, the **Surveillance actions**, method specified in this standard aim at contradicting the confidence placed, at a given time on the Design Supplier to operate on a given contracted activity (Ref **Annex A**), such that:

- Evidenced contradiction of compliance should lead to a focused recovery action and/or risk mitigation (avoidance, reduction, protection ...),
- Surveillance status that does not contradict compliance should enable the Purchaser to maintain its confidence in the Design Supplier Compliance Declaration, at a defined risk level.

The surveillance steps consist in the **regular** evaluation of the **Design Supplier Criticality** specified in **Annex B** and the confirmation that the Purchaser **Controls** over the acceptance of his design supplier deliverables, ie sampling, check ... or involvement are **in Place and Effective**. Protection shall be implemented in case of deficiency.

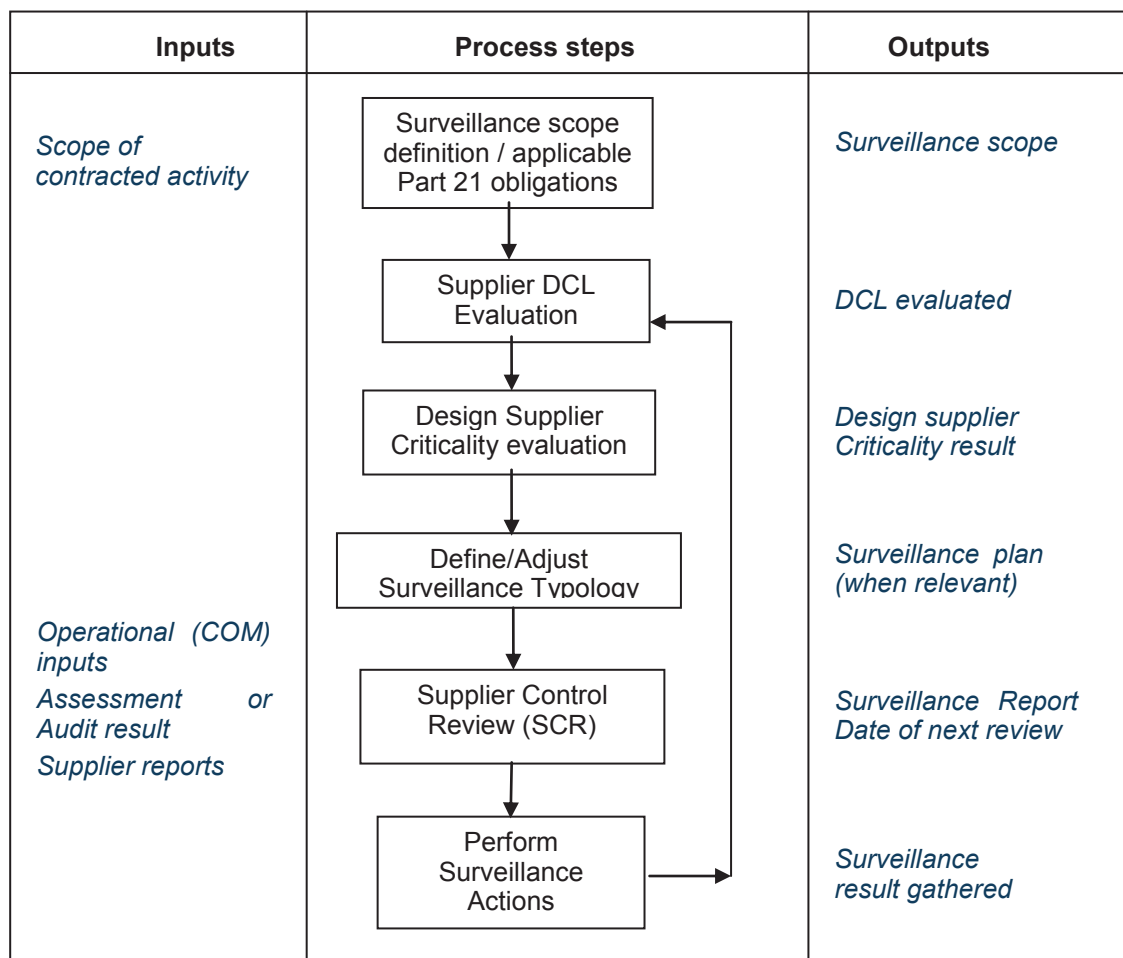


Figure 2 - Surveillance Process workflow

Considering the applicable **Surveillance Topics (DCLx)** defined in **Annex A**, the Purchaser staff exercise his best **engineering judgment** over the evaluation of the **Design Supplier Criticality**. He/she evaluates whether the Design Supplier ways of working adequately complies with applicable regulatory obligations and Purchaser essential operational requirements, through:

- Deliverable operational evidences (performance management)
- Demonstration of process compliance during Reviews, Assessment, Audit or Investigation,
- Reporting from Design Supplier internal surveillance results,

He may decide to **substantiate** his **Engineering judgment** by the implementation of a **structured surveillance plan**. The content and depth of the **structured surveillance plan** shall be defined based on the statistical representativeness of the scope surveyed and risk / criticality over product and business performance. **Annex C** provides guidelines and example of a structured surveillance plan, whose content is directly derived from ISO 2859-4.

4.3.1 Surveillance scope definition / applicable Part 21 obligations

To initiate his activities and minimize redundancies, the Purchaser shall consider the specificities required for Supplier Surveillance and establishes the granularity and the differentiating factors he will consider appropriate to manage (Supplier site, isolated work packages, Nature of activity, Programmes...).

Using guidance of **Annex A** and table below, the Purchaser maps the regulatory obligations and operational requirements applicable to the nature of the contracted activity by selecting amongst the twelve (12) surveillance topics listed in the Table 1- . This selection defines the scope for which he will survey the supplier **compliance** and **performance** versus applicable **Part 21 Obligations**.

NOTE: The DCLx not applicable to the Design Supplier contracted scope shall have their applicability removed ("N/A" added in the Surveillance Templates) and their weighting in the global computation neutralized.

Part 21 Rqt	Ref.	Surveillance Topics
21A.239	DCL01	Development Project Management
21A.3	DCL02	Failures, malfunctions and defects (Event reporting)
21A.4	DCL03	Coordination between design and production
21A.31	DCL04	Non Conformity Management
21A.33	DCL05	Investigation and certification testing
21A.55	DCL06	Document & data retention
21A.91	DCL07	Configuration management
21A.239 / 245 / 247	DCL08	Organisation & Signatory Management
21A.239	DCL09	Acceptability & Performance of Airworthiness deliverables
21A.31 / 239	DCL10	Acceptability & Performance of Technical deliverables
21A.239 / ...	DCL11	Sub-Tier Management
21A.61	DCL12	Continuing Airworthiness Management (ICA)

Table 1- Compliance statements (DCLx)

4.3.2 Design Supplier DCL evaluation

On the selected scope and based on his Engineering judgment substantiated as relevant with available evidences, the Purchaser evaluates the Design Supplier "**Declared Compliance Level**" (DCL) **compliance** and **performance**. The compliance and performance evaluation may be conducted for each applicable DCLx or globally. Result must be recorded in the Surveillance Report:

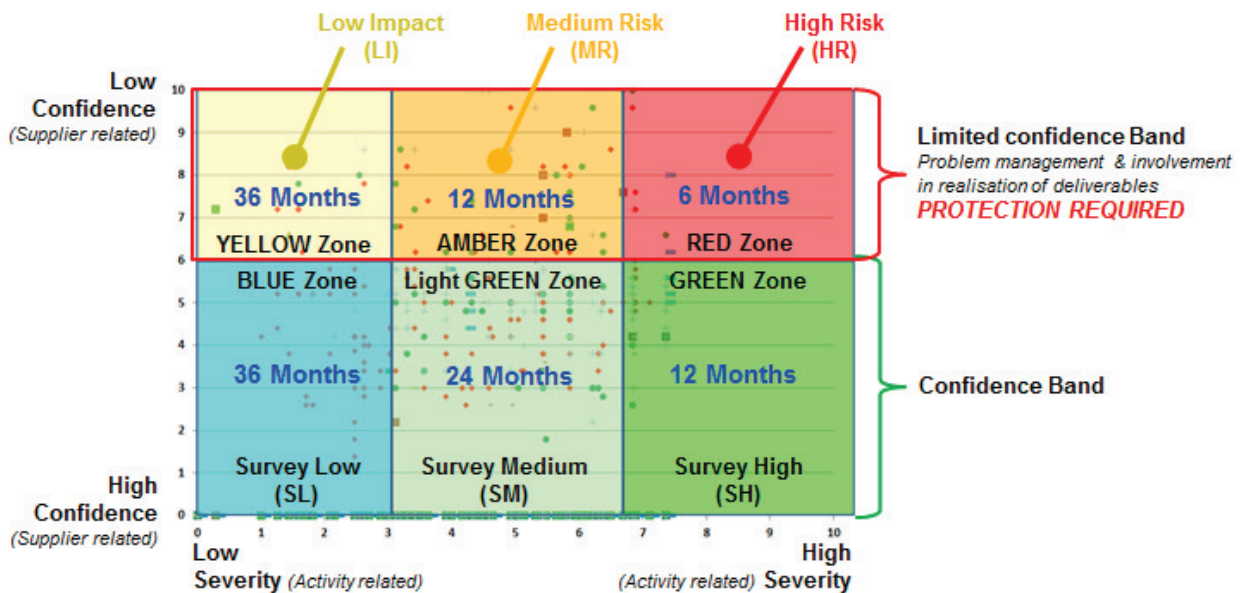
- As reference records on progress evaluation,
- To indicate the area of risk and potential mitigation or improvement needed.
- For supplier rating public relation.
- For use in the computation of the next **Supplier DOA Criticality** defined in **Annex B**.

Some approximation in the evaluation is acceptable, provided it is done in a conservative manner. The surveillance activities and operational mitigations or recovery actions launched to address this conservative value will later increase the accuracy of the evaluation and reduce the unwanted consequences of a hazard from Design Suppliers' surveillance.

4.3.3 Design Supplier Criticality evaluation

Considering the surveillance scope and DCL evaluation result, the Purchaser shall evaluate the **design supplier criticality** indexes, as specified in **Annex B** to establish:

- The confidence the Purchaser places in its design supplier and/or its risk exposure,
- The surveillance interval duration and the date of the next review,
- Whether “Control are in Place and Effective” for the acceptance of the design supplier’s deliverables,
- The next interval surveillance typology (Ad Hoc surveillance or **Structured Surveillance Plan**).



When the **Supplier DOA Criticality** is confirmed to be in “**Limited confidence band**” (Ref **Error! Reference source not found.**), the supplier’s deliverables may not meet Purchaser product, operational requirements or regulatory obligations. **PROTECTIVE** measures shall therefore be put in place (part of **risk acceptance**) such as reinforced Purchaser controls for the acceptance of the supplier deliverables. These controls may involve: Systematic checks, dedicated samplings... up to involvement in the release of the supplier deliverables.

A particular care shall then also be placed on the way the Design Supplier accepts his sub-tier design supplier deliverables, given that the **sub-tier oversight** and **cascade** of requirement within the supply chain shall be anticipated as **not adequate**.

4.3.4 Define Surveillance Typology

For the next surveillance cycle, the Purchaser shall decide how to substantiate his **Engineering Judgment**, selecting between the following surveillance typologies:

- By an **Ad-Hoc** review of existing data gathered for the evaluation (minimum surveillance action), or
- By the implementation of a **Structured Surveillance Plan** aiming at planning verification of specific elements during the surveillance cycle.

The Purchaser shall consider the relevance and value added of substantiating data to contradict the DCLx in scope, using the below Figure 4: Surveillance means selection tree”, balancing between:

- Existing Product and Process Continuous Operational Monitoring (COM),
- Usage of reliable design supplier reports and surveillance results,
- Demonstration of compliance ascertained during Assessment or Audit

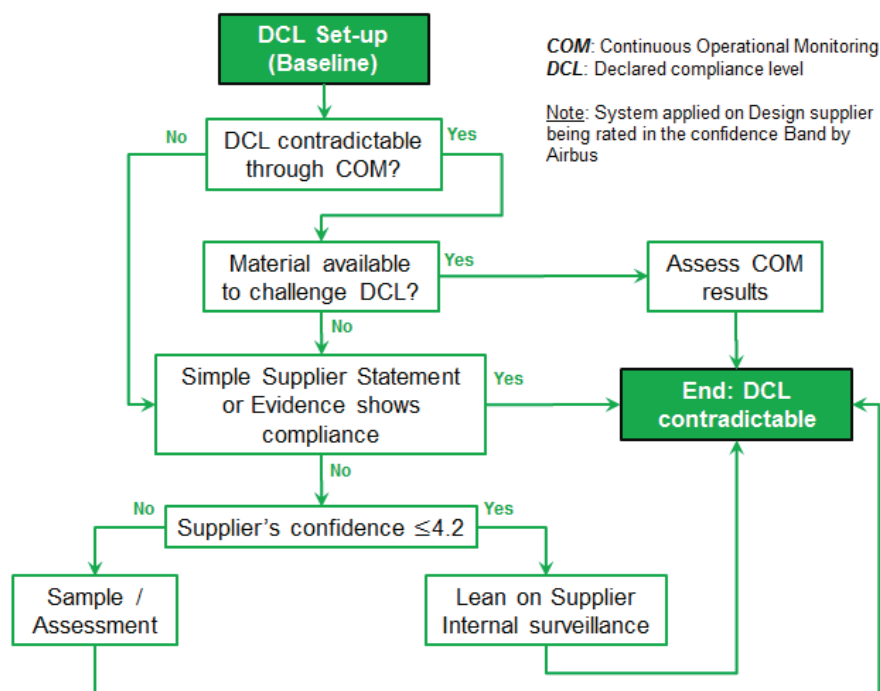


Figure 4: Surveillance means selection tree

In case the **supplier DOA criticality** is in **YELLOW, AMBER** or **RED zones** (Low Impact, Medium or High, Risk areas), the gathering of surveillance evidence can be reduced, to concentrate actions on a focussed recovery and the tracking of the action plans. Indeed, there is no need to further contradict compliance as the supplier is already evaluated in the “**limited confidence band**”.

NOTE: Over 3 year interval maximum, Assessment, Audit or Investigation might be conducted to gather the DCLx evidences considered necessary that were not made available by the usage of other means.

4.3.4.1 “Ad-Hoc” review

Latest at the planned surveillance date, the Purchaser reviews existing data considered relevant to substantiate his/her Engineering judgment and formalizes its Supplier Surveillance result via DOA criticality update and issue of the surveillance report.

This above action is the minimum surveillance to be conducted and concludes the “Ad-Hoc” surveillance activity.

NOTE: At any time and in particular in case of unforeseen contradiction to a design supplier declared compliance level (DCL) evidenced during dedicated investigation, e.g. in service event or programme management reviews, the Purchaser may reconsider the adequacy of the “Ad-Hoc” surveillance typology, re-compute the Design Supplier Criticality and possibly increase his level of surveillance by implementing a structured surveillance plan.

4.3.4.2 “Structured Surveillance Plan” establishment

The use of a **structured surveillance plan** (ref **Annex C**) formalizes and structures the gathering of substantiating data during the surveillance interval. The depth and intensity of data gathering during the surveillance interval should be based on:

- The Purchaser need to substantiate his/her Engineering Judgment
- Surveillance objectives versus applicable surveillance topics (DCLx),
- Statistical representativeness of the product and processes to be surveyed,
- The supplier DOA criticality result, as Structured Surveillance Plan is only relevant for GREEN (HS), Light GREEN (MS) and BLUE (LS) Zones only,
- The nature of the operational evidences looked for and their continuous or discrete measure / availability, in line with Figure 4: Surveillance means selection tree”,
- The ISO 2859-4 statistical confidence target,

When a structured surveillance plan is defined, it shall be shared with the design supplier and managed during the surveillance interval.

NOTE: Although the structured surveillance plan is defined upfront, any occasion to gather evidence of update and contradiction to the declared compliance level (DCLx) may be taken, such as but not limited to: dedicated investigation, unforeseen event, un-planned programme management reviews ...

4.3.5 Perform Surveillance actions

In line with the surveillance typology, research for evidence is made, so that update of the design supplier Declared Compliance Level may be done and contradiction possibly pronounced.

Any non-compliance evidenced during a Surveillance period shall be considered as to “contradict” the respective Compliance statement (DCLx).

Depending on the finding, the considered non-compliance may lead the DCL Compliance to be rated B or C, as defined in chap. 7.2.

Annex D provides guidance for identifying non-compliance to DCLx.

NOTE: Contradiction to a DCLx would be identified while searching for the root cause of an operational error or of an issue. The root cause generally remains undetected if not carefully investigated, using adequate means and tools.