

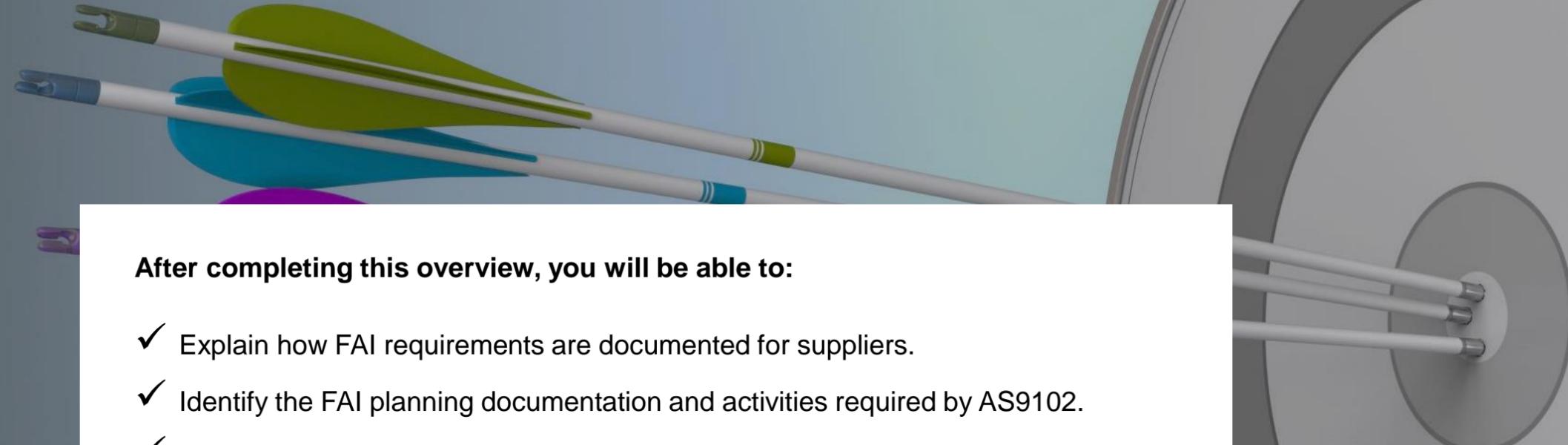


# SUPPLIER FAI REQUIREMENTS

## Overview

**December 2024**

This overview describes the requirements for completing a First Article Inspection Report (FAIR) for Collins Aerospace. The overview includes the detailed FAI requirements documented in AS9102 and COL-ASQR-WRK-0001.



**After completing this overview, you will be able to:**

- ✓ Explain how FAI requirements are documented for suppliers.
- ✓ Identify the FAI planning documentation and activities required by AS9102.
- ✓ Recognize the types of FAI and the scenarios when FAI is required.
- ✓ Differentiate between AS9102 and Collins Aerospace FAI requirements.

# SUPPLIER FAI REQUIREMENTS

## Agenda

- Module 1
  - Scope of Overview
  - Collins FAI Requirements
- Module 2
  - FAI Planning per AS9102
  - Evaluation of Changes per AS9102
  - FAIR Exceptions
  - FAIR Requirements
  - Record Retention
  - Handling of Nonconformances
- Module 3
  - Form 1: Part Number Accountability
  - Form 2: Product Accountability
  - Form 3: Characteristic Accountability
  - Documentation
- Module 4
  - Contact / Reference Information

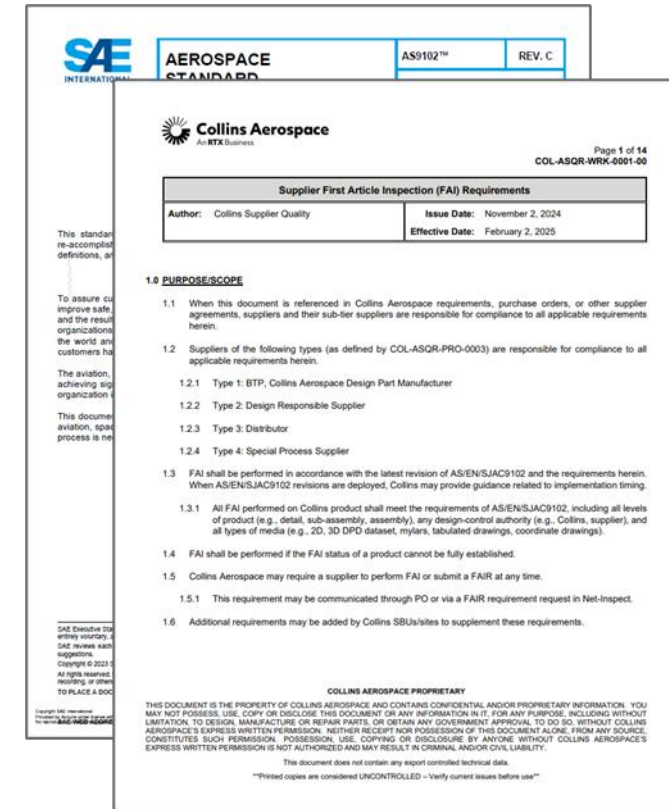
# MODULE 1

Scope of overview, flow down structure

# SUPPLIER FAI REQUIREMENTS

## Scope of overview

- The intent of this overview is to describe the requirements for completing a First Article Inspection Report (FAIR) for Collins Aerospace.
- Detailed FAI requirements are documented in AS9102 and COL-ASQR-WRK-0001.
- Additional requirements from Collins sites or business units may exist that are not covered in this overview.



**Note 1: Ensure you are using the current Revision of each document.**

# SUPPLIER FAI REQUIREMENTS

## Collins FAI Requirements

- COL-ASQR-WRK-0001 consolidates Supplier FAI Requirements from several strategic business units (SBUs) within Collins.
- It is the Collins vision to consolidate all FAI requirements into a single document, however, SBUs currently have supplemental requirement documents in addition to COL-ASQR-WRK-0001.
- The Collins purchase order and/or contract will define FAI requirements.

### Flow Down Structure

Collins Supplier FAI Requirements

SBU Requirements

SBU Requirements

SBU Requirements

SBU Requirements

# MODULE 1

## Knowledge Check

- Collins Aerospace supplier FAI requirements can all be found in one document.

– True

– False

*False. FAI requirements for supplier to Collins Aerospace are defined by AS9102, COL-ASQR-WRK-0001, and other SBU-specific flow downs.*

# MODULE 2

## First Article Inspection (FAI) Requirements

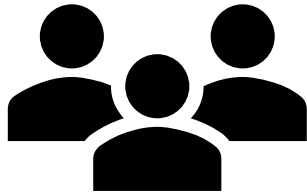
# SUPPLIER FAI REQUIREMENTS

## FAI planning per AS9102, section 4.1

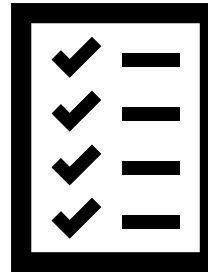
- A documented process to **plan for FAI** is required.



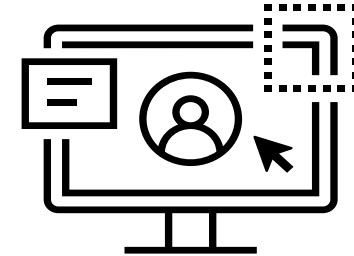
Prior to the first  
production run....



Identify the  
responsible  
functions to  
be involved



Address the  
activities to be  
performed



Verify the revision for  
embedded or  
deliverable software



Verify FAI  
planning  
activities have  
been completed

# SUPPLIER FAI REQUIREMENTS

FAI PLANNING, CONTINUED...



Consider the following activities and, if required by contract, coordinate planning with the customer:



1. Inspection of characteristics not measurable in the final product.



2. Digital product definition (DPD) info required for product realization



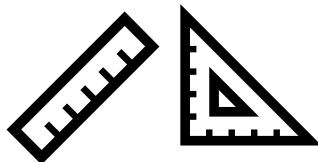
3. Objective Evidence to be included in the FAIR



4. Approved Special Process and other required sources



5. Identify Key Characteristics



6. Suitable Monitoring and Measuring equipment



7. Coordinate customer FAI reviews



8. Identify events requiring an updated FAI

The organization shall *verify* FAI planning activities have been completed

# SUPPLIER FAI REQUIREMENTS

FAI PLANNING, CONTINUED...

## Example(s)

R - Responsible A - Accountable S - Supports I - Informed C- Consulted		FIRST ARTICLE INSPECTION STAKEHOLDERS							
See note below for clarification		Shop Floor Manufacturing Engineer	Quality Engineer	Quality Assurance Inspector/Technician	Production Control	FAI Administrator	Quality Manager	Production	Project Manufacturing Engineer
DELIVERABLES	Create MCA (Trigger FAI)	C	I	I	I	I	I		A/R
	Create TeamCenter Object		R	A/R					
	Create/Update Manufacturing Tree	A/R		I		I			
	Update tracker (throughout)		I	I		A/R	I		
	Creates routing on SAP and TeamCenter	A/R	I	I	S	I			
	Review FAI Routing	I	A/R	R		R			
	Prepares form 1	R		R		A/R			
	Prepares form 2	R		R		A/R			
	Prepares form 3	R		R		A/R			
	Balloons the engineering	R		R		A/R			
	Print routing	I			A/R				
	Manufactures the part	S	S	S			S	A/R	
	Inspects the part		S	A/R		I	S	S	
	Completes the forms 1, 2 and 3	R		R		A/R			
	Review FAI (Recommended)		R			A/R			
	Loads FAI in TeamCenter	I	R	A/R		I			
Note: Accountable - The one ultimately answerable for the completion of the deliverable or task Responsible - Those who do the work to achieve the task Support - Resources available to Responsible. Unlike Consulted, who may provide input to the task, Support helps complete the task Consulted - Those whose opinions are sought, and with whom there is two-way communication Informed - Those who are kept up-to-date on progress, often only on completion of the deliverable or task; one-way communication Entries shown are for reference - you need to establish entries based on your requirements									

RASIC\* (responsible, accountable, supports, informed, consulted) may be used to identify functions of the organization to be involved in FAI.

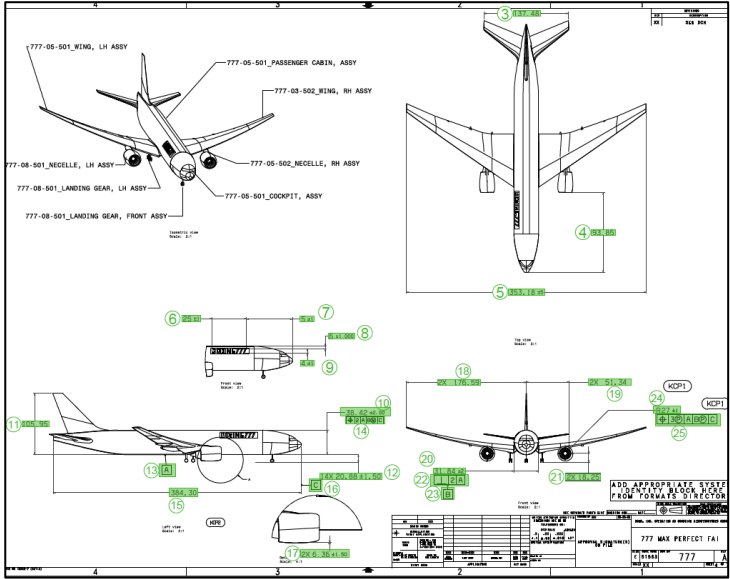
\*Also called RASCI, RASI, or RACI



**Note 2:** It is recommended to plan how to identify FAIs on the Production Floor (e.g., different color cover sheet on traveler)



Attention of: Company Name and Address  
Material: Collins Aerospace  
Date: 4/11/2023  
Customer: Collins Aerospace  
Purchase Order No: PO Line Item No: 50  
Part: Collins Part Name: Collins Part Name  
Drawing: Collins Part Name Rev: E  
Lot#: 209668 Qty: 100 Manufacturing Date: 04-11-2023 Shelf Life: 04-11-2023  
Special Process: N/A Source of Process: N/A Cert/Lot No: N/A  
The following materials were used in the manufacture of P/N: 123456  
Materials: Lot: Burn Cst. Test: Type: Lot: Burn Cst. Test: Type:  
This is to certify that the material furnished for referenced purchase order has been manufactured in accordance with the applicable Government and customer specifications.  
Supplier certifies material used to manufacture the part number listed above conforms to the controlling design data, and parts meet all requirements/specifications in the design data at the revision specified. The supplier also certifies that they have objective evidence of compliance to applicable specifications on file, traceable to the material/equipment supplied and available for review upon request.  
Test reports and/or evidence of complete inspection are on file subject to examination and indicate conformance to applicable military and commercial requirements.  
Vendor Responsible person Signature: Printed Name: Vendor Responsible person Name Printed



- Example supporting documentation included in the FAIR:
- Material Certifications
  - Ballooned Documents

# MODULE 2

## Knowledge Check, Question 1

- Select the item that is not part of FAI planning.
  - Identify the responsible functions to be involved
  - Validate conformity of the FAI part to all requirements
  - Verify the revision for embedded or deliverable software
  - Verify FAI planning activities have been completed

*FAI planning is performed prior to the first production run. FAI part conformity to requirements cannot be validated until after production.*

# MODULE 2

## Knowledge Check, Question 2

- Which of the following should be considered during FAI planning?
  - Evaluate DPD design characteristics required for product realization which are not fully defined on 2D drawings
  - Identify approved special process, laboratory, material, and customer required sources
  - Identify key characteristic and critical item requirements
  - All of the above, if applicable to the FAI part

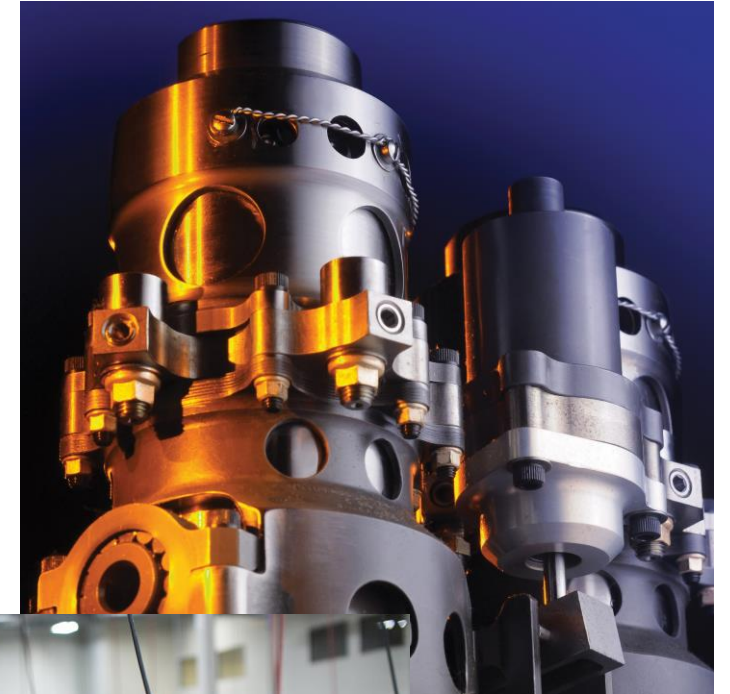
*All three should be considered during FAI planning, if applicable to the FAI part.*

# SUPPLIER FAI REQUIREMENTS

Evaluation of changes per AS9102, section 4.6.f



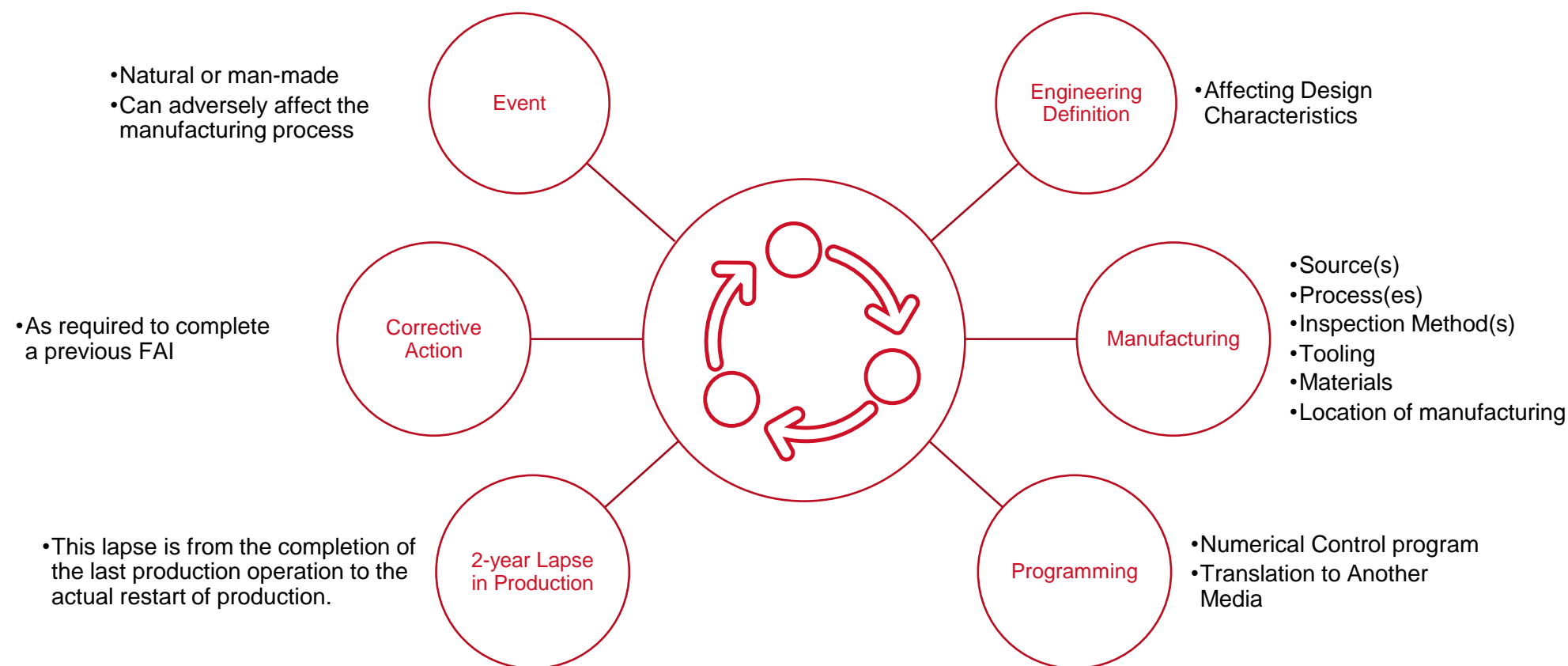
The organization shall have a documented process to evaluate any changes to product realization processes or engineering / design requirements that invalidate or are not represented in the previous FAI and then perform a full or partial FAI, as determined by the evaluation.



# SUPPLIER FAI REQUIREMENTS

EVALUATION OF CHANGES,  
CONTINUED . . .

The organization shall perform the evaluation when any of the following occurs:



# MODULE 2

## Knowledge Check, Question 3

- An organization must evaluate any changes to the product realization process if a building fire occurred that could adversely affect the manufacturing process.
  - True
  - False

*True. This is an example of a natural or man-made event, which can adversely affect the manufacturing process—one of six criteria for performing a change evaluation.*

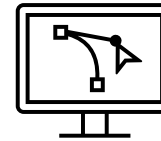
# SUPPLIER FAI REQUIREMENTS

## FAI Exceptions per AS9102, section 1.3

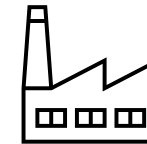
Unless contractually required, first articles do not apply to:

- ✓ Development and prototype parts that are not considered as part of the first production run.

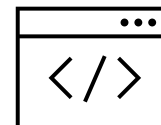
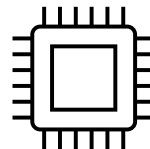
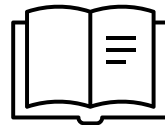
Pre-production part  
vs. production part



vs.



- ✓ Procured standard catalogue items, COTS, or deliverable software.



# SUPPLIER FAI REQUIREMENTS

## FAIR requirements per COL-ASQR-WRK-0001, section 5.1

- FAI shall be performed to released Collins design requirements, even if supplier-controlled documentation is used to produce the product.
  - Part number, name, and revision (Form 1, fields 1, 2, and 5) shall be the Collins P/N, name, and revision, when available.
  - Drawing number and revision shall be from the Collins drawing, when available.

<p><b>5. Part Revision Level (R)</b> Revision level of the FAI part being inspected.</p> <p>When the part has not been revised, indicate as such (e.g., N/C, No Change).</p>	<p><b>1. Part Number (R)</b> Number of the FAI part as shown on the Collins Purchase Order or the BOM.</p>	<p><b>2. Part Name (R)</b> Name of the FAI part from the Collins PO or engineering / design documents.</p>	<table border="1"><tr><td><b>5. Part Revision Level:</b></td><td><b>6. Drawing Number:</b></td></tr></table>	<b>5. Part Revision Level:</b>	<b>6. Drawing Number:</b>
<b>5. Part Revision Level:</b>	<b>6. Drawing Number:</b>				
	<p><b>1. Part Number:</b></p> <p><b>5. Part Revision Level:</b></p>	<p><b>2. Part Name:</b></p>	<p><b>6. Drawing Number (R)</b> Drawing and/or DPD number associated with the FAI part. Drawing number reflects the Collins drawing and/or DPD, when available.</p> <p><i>Note: the drawing number may be different than the part number.</i></p>		

- The requirements in COL-ASQR-WRK-0001 do not replace or remove the requirement for suppliers / manufacturers to complete internal FAI to their own drawings when they exist.

# SUPPLIER FAI REQUIREMENTS

## FAIR requirements per COL-ASQR-WRK-0001, section 5.1

- All FAIRs pertaining to Collins product, regardless of design responsibility, shall be made available to Collins upon request.
- The FAI shall be completed to the PO requirements (e.g., Collins drawing, Ops Sheet, Installation drawing, CCS).

Purchase Order: 12345678

Item	Material Description	Quantity	Unit of Measure
		Price	Per Unit
00010	ABC-123 Aerospace Part DWG Rev or DIR: NC Issue: 01	100 3.14 Net Value: 314.00	each 1

Vendor Material No:  
Item Last Changed on: 05/08/2007  
Target QM: Quality System Approval Required  
Inspection: Subject to Inspection at Supplier  
Contract: COMMERCIAL  
Tax Code:  
ECCN/USML#: EAR99  
Internal Order:

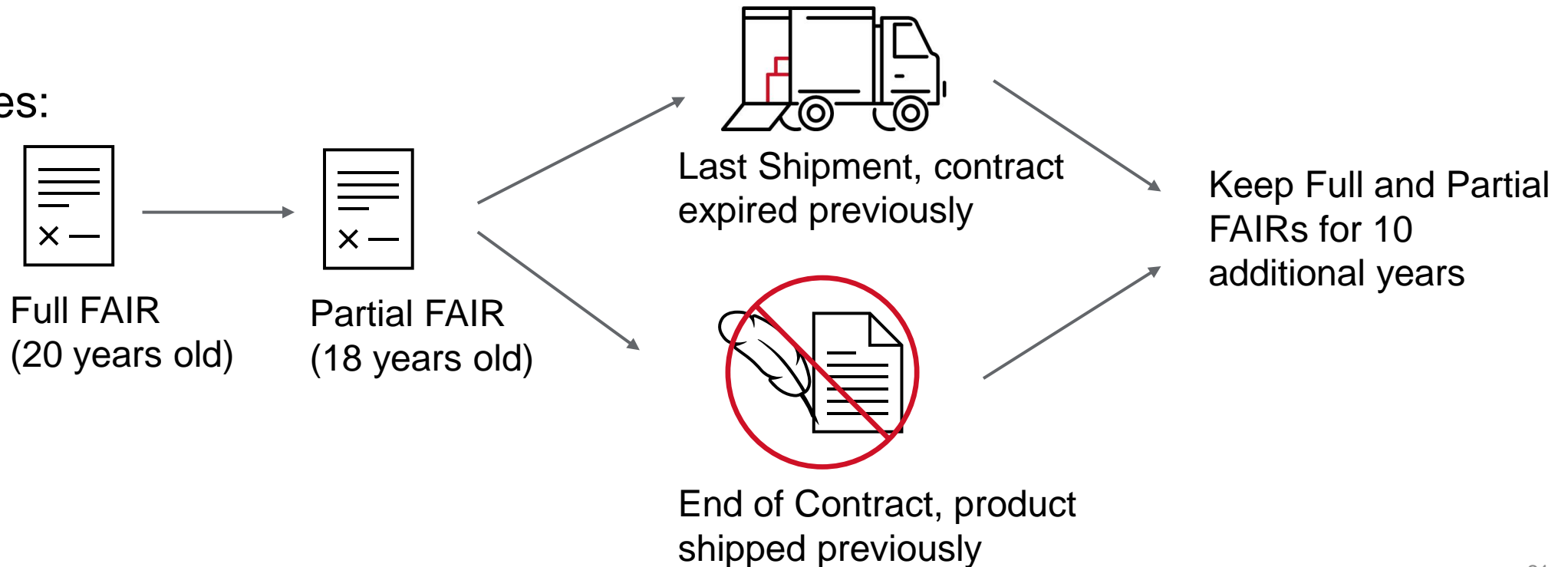
Condition:  
  
DPAS Rating:  
Leadtime: 60 Calendar days  
HS Number:

# SUPPLIER FAI REQUIREMENTS

## Record Retention per COL-ASQR-WRK-0001, section 5.6

- Supplier shall retain the current full FAIR and all subsequent partial FAIRs for a minimum of 10 years from the end of the contract or from the last shipment of product (whichever is later), in addition to other record retention requirements (e.g., COL-ASQR-PRO-0003).

- Examples:



# SUPPLIER FAI REQUIREMENTS

## Record Protection per COL-ASQR-WRK-0001, section 5.6

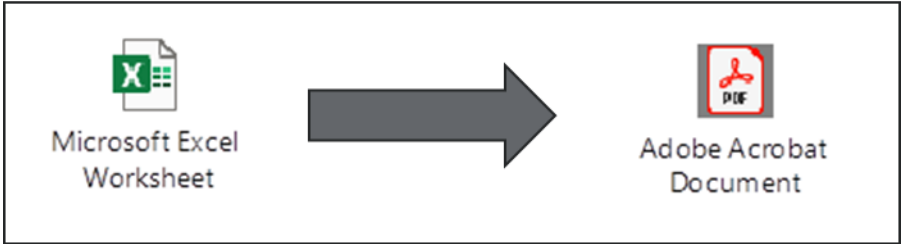
- Supplier shall ensure FAI records are protected from alteration.

FORM 3 - CHARACTERISTIC ACCOUNTABILITY, VERIFICATION, AND COMPATIBILITY EVALUATION

Sheet 1 of 1

1. Part Number ABC-123				2. Part Name Aerospace Part		3. Serial Number 314	4. FAIR Identifier A1B2C3
Characteristic Accountability				Inspection / Test Results			
5. Char. No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9. Results	10. Designed / Qualified Tooling	11. Nonconformance Number	12. Additional Data / Comments
1	S1 D1		Note 1. Anodize blue per AB-1	Accept			
2	S1 D1		Note 2. Break all sharp edges to .02	Accept	Radius Gage .003-.016		
3	S1 D1		Note 3. Interpret per ASME Y14.5	Accept			
4	S1 D1		Note 4. Electrical Conductivity test per ECT-1	Accept			
5	S1 D1		Note 5. Install plugs per IP-1	Accept			

No White-out



Ensure the entire workbook is selected when converting to PDF.



**Note 3:** If FAIR is submitted in Word or Excel format, ensure file is protected to prevent unintended changes.

# SUPPLIER FAI REQUIREMENTS

## Handling of Nonconformances per COL-ASQR-WRK-0001, section 5.4

- When a nonconformance is discovered in the FAI part, several requirements apply (reference AS9102, section 4.5).
- Collins requirement:
  - COL-ASQR-WRK-0001, section 5.4: When a FAIR contains a documented nonconformance as indicated by Form 1, field 19, parts shall not ship unless Collins has approved shipment of the non-conforming material per the site's authorization process.
- Nonconformances are documented in the FAIR:
  - Form 1, field 19:
  - Form 1, field 8
  - Form 3, field 11
  - Attach the approved waiver to the FAIR.
- Per AS9102, the supplier shall repeat the FAI process until all nonconformances are resolved.

19. Does FAIR Contain a Documented Nonconformance(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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8. Additional Changes:
Waiver: 123456

11. Nonconformance Number
123456

# MODULE 2

## Knowledge Check, Question 4

- A full FAIR can be destroyed after 10 years, if a partial FAIR was completed more recently and the contract for the part has not expired.
  - True
  - False

*This statement is false. The full FAIR must be retained, along with all partial FAIRs, for a minimum of 10 years from the end of the contract or from the last shipment of product (whichever is later), in addition to other record retention requirements (e.g., COL-ASQR-PRO-0003).*

# MODULE 3

## FAIR Requirements

# SUPPLIER FAI REQUIREMENTS

## Form 1 – Part Number Accountability (Fields 1 to 12)

Key:  
AS9102 requirement  
Collins Aerospace requirement  
Example or note

5. Part Revision Level (R)  
Revision level of the FAI part being inspected.

When the part has not been revised, indicate as such (e.g., N/C, No Change).

6. Drawing Number (R)  
Drawing and/or DPD number associated with the FAI part. Drawing number reflects the Collins drawing and/or DPD, when available.

Note: the drawing number may be different than the part number.

1. Part Number (R)  
Number of the FAI part as shown on the Collins Purchase Order or the BOM.

2. Part Name (R)  
Name of the FAI part from the Collins PO or engineering / design documents.

3. Serial Number (CR)  
Serial number of the FAI part, if assigned by Collins. Part mark photo includes serial number shown here.

4. FAIR Identifier (R)  
Identifier for the FAIR.

Note: this is autogenerated when using Net-Inspect.

7. Drawing Revision Level (R)  
Revision level of the drawing or DPD associated with the FAI part.

If the drawing has not been revised, indicate as such (e.g., N/C, No Change).

Note: May be different from field 5.

1. Part Number:	2. Part Name:	3. Serial Number:	4. FAIR Identifier:
5. Part Revision Level:	6. Drawing Number:	7. Drawing Revision Level:	8. Additional Changes:
9. Manufacturing Process Reference:	10. Organization Name:	11. Supplier Code:	12. Purchase Order Number:

9. Manufacturing Process Reference (R)  
Reference number that provides traceability to the manufacturing record of the FAI part (e.g., router number, manufacturing plan number).

10. Organization Name (R)  
Name of organization that performed the FAI.

11. Supplier Code (R)  
Unique number given to the organization.

Note: for Collins PO holders, the supplier code is issued by Collins Aerospace and listed on the Collins PO. Since Collins may issue multiple vendor codes to a supplier, ensure the code matches that of the P.O. listed in field 12.

12. Purchase Order Number (R)  
Customer purchase order number.

Note: For Collins PO holders, enter the Collins procurement document number (e.g., purchase order, LTA, scheduling agreement).

8. Additional Changes (CR)  
Provide reference numbers of any changes that are incorporated in the product, but not reflected in referenced drawing/part revision level.

Example documents include: QN, Deviation, Waiver, ECPR, MAAA, COL-ASQR-FRM-0002, ADCN, DCN, CCS

Note: SRI is insufficient approval for product deviations.

# SUPPLIER FAI REQUIREMENTS

Key:  
AS9102 requirement  
Collins Aerospace requirement  
Example or note

## Form 1 (Fields 13 to 18)

13. Detail / Assembly (R)  
Type of FAI; check, as appropriate.

Data Fields 15, 16, 17, and 18:  
This section is only required if the part number identified in field 1 is an assembly. All BOM parts (e.g., detail parts, sub-assemblies, COTS) that are part of the assembly, identified in field 1, shall be listed in this section.

14. Full FAI / Partial FAI (R)  
Check the appropriate box.

14. Baseline Part Number (including revision level): (CR)  
For a partial FAI, provide the previous FAI part number or approved configuration (including revision level).

14. Full FAI / Partial FAI (R)  
Describe the reason for the full or partial FAI (e.g., new part number; lapse in production; changes in design, process, or manufacturing location).

13. Detail: <input type="checkbox"/>	14. Full FAI <input type="checkbox"/>	Partial FAI: <input type="checkbox"/>	
-	Baseline Part Number (including revision level):		
Assembly: <input type="checkbox"/>	Reason for Full / Partial FAI:		
a) If the part number above is a detail part only, go to field 19. b) If the part number above is an assembly, go to the "INDEX" section below.			
INDEX of part numbers or sub-assembly numbers required to make the assembly noted above.			
15. Part Number:	16. Part Name:	17. Part Type:	18. FAIR Identifier:

15. Part Number (CR)  
When Collins is the design authority, the part number shall be defined by Collins, either as listed on engineering documentation (e.g., drawing, BOM) or the approved manufacturer's list (AML).

16. Part Name (CR)  
Name or description of the part number entered in field 15 that is installed in the assembly.

17. Part Type (CR)  
Enter whether the part is a detail part, sub-assembly, software, standard catalog item, or COTS (or equivalent).

18. FAIR Identifier (CR)  
FAIR identifier for the detail parts and associated assemblies.  
For COTS items, enter a certification traceability number.

Other Requirements  
Regarding Field 18:  
Provide CoC and/or traceability documentation for all COTS items.  
  
*Note: Refer to COL-ASQR-PRO-0003 and/or RC-9000 for requirements related to Collins Aerospace approval for distributors of metals, electronics, and hardware (COTS) in the supply chain.*

# SUPPLIER FAI REQUIREMENTS

Key:  
AS9102 requirement  
Collins Aerospace requirement  
Example or note

## Form 1 (Fields 19 to 26)

20. FAIR Verified By: (R)  
Legible identification of the person verifying the evaluation activities per AS9102 were completed.

21. Date: (R)  
Date when field 20 was populated.

22. FAIR Reviewed / Approved By: (R)  
Legible identification of the person from the organization who reviewed and approved the FAIR. Should not be the same individual identified in field 20.

23. Date: (R)  
Date when field 22 was populated.

24. Customer Approval: (CR)  
Used by Collins to record approval.

25. Date: (CR)  
Date when field 24 was populated.

26. Comments (O)  
Provide any supporting comments (e.g., associated nonconformance information, identification of associated documentation).

19. Does FAIR Contain a Documented Nonconformance(s)? (R) When a nonconformance(s) has been documented in the FAIR, check "Yes".	
19. Does FAIR Contain a Documented Nonconformance(s)? Yes <input type="checkbox"/> No <input type="checkbox"/>	
20. FAIR Verified By:	21. Date:
22. FAIR Reviewed/Approved By:	23. Date:
24. Customer Approval:	25. Date:
26. Comments:	

Note: Electronic identification is acceptable throughout.

# SUPPLIER FAI REQUIREMENTS

Key:  
AS9102 requirement  
Collins Aerospace requirement  
Example or note

## Form 2 – Product Accountability – Materials, Special Processes, and Functional Testing

6. Specification Number: (CR)  
Provide the following information:

- Material specifications and material form (e.g., sheet, bar) for all materials incorporated into the FAI part (e.g., weld, braze filler).
- Special process specifications; including class, if applicable, and permitted substitutions.
- If listed in the engineering documentation, include the applicable type, class, grade, etc.
- If Commercial-Off-the-Shelf (COTS) / standard catalog items are modified, then list the non-modified standard hardware or COTS item part number.

*NOTE: Non-modified COTS / standard catalog item(s), when part of an assembly, are not included here, but rather in Form 1, fields 15 to 18.*

8. Supplier: (CR)  
Identify organization (internal or external) performing special process(es) or supplying material.

- Name.
- Address.
- Code (when available).

7. Code (O)  
Any code specified for the material or process.

9. Customer Approval Verification: (CR)  
Indicate if the special process(es) or material sources are approved by Collins. Enter “Yes” if approved; “No” if approval is required, but process source is not approved; or “NA” if Collins approval is not required.

10. Certificate of Conformance Number: (CR)  
The applicable certificate number (e.g., special process completion certification, raw material test report number, modified standard catalog item compliance report number, traceability number).

5. Material or Process Name: (CR)  
Name of material (e.g., raw materials, paint, primer adhesives, weld filler, ink, clear coat) or special process as stated in the drawing, parts list, or specification.

If processes are required to be performed multiple times (e.g., 2x MPI), each occurrence shall be listed in separate rows with all information included.

5. Material or Process Name:	6. Specification Number:	7. Code:	8. Supplier:	9. Customer Approval Verification:	10. Certificate of Conformance Number:
11. Functional Test Procedure Number:			12. Acceptance Report Number:		
13. Comments					

13. Comments (O)  
Provide supporting comments, as applicable.

11. Functional Test Procedure Number: (CR)  
Functional Test Procedure number identified as a design characteristic. Enter the revision date and/or revision of the test procedure, if defined.

12. Acceptance Report Number: (CR)  
The functional test certification indicating that test requirements have been met.



# SUPPLIER FAI REQUIREMENTS

Key:  
AS9102 requirement  
Collins Aerospace requirement  
Example or note

## Form 3 – Characteristic Accountability, Verification, and Compatibility Evaluation

5. Char. No: (R)  
Unique assigned number for each design characteristic.  
• The ballooned design characteristic shall clearly be traceable to the characteristic number listed in field 5.  
• Automated inspection methods/tooling measurement report/results, shall all be clearly linked to the characteristic number in field 5, ballooned drawing, and associated measurement report/results.  
• All balloons shall be individually listed and accounted for on Form 3.  
*Note: A single design callout that applies to multiple characteristics (see AS9102 section 3.16) may be recorded as one characteristic.*

8. Requirement: (R)  
Specified requirement for the design characteristic (e.g., drawing or DPD dimensional characteristic with associated nominal dimension and tolerances, drawing notes, requirements).  
• The organization shall record the requirements in the units (e.g., metric, imperial systems) specified on the drawing or DPD, unless otherwise approved by Collins.  
• The organization shall record the software revision for embedded or deliverable software.

11. Nonconformance Number: (CR)  
If the characteristic is found to be nonconforming, record a nonconformance document reference number.

12. Additional Data / Comments (O)  
This area is reserved for optional fields; add additional columns, as required, by the organization or Collins.

5. Char. No.:	6. Reference Location:	7. Characteristic Designator:	8. Requirement:	9. Results:	10. Designed / Qualified Tooling:	11. Nonconformance Number:	12. Additional Data / Comments:
---------------	------------------------	-------------------------------	-----------------	-------------	-----------------------------------	----------------------------	---------------------------------

6. Reference Location: (CR)  
Location of the design characteristic [e.g., drawing zone (page number and section), Digital Product Definition (DPD) model location callout].

7. Characteristic Designator: (CR)  
As applicable, a unique identification for special requirements defined by Collins [e.g., Key Characteristic (KC), Critical Item (CI), items requiring additional design or process control].

9. Results: (R)  
List measurement(s) obtained for the design characteristics. The organization shall record the results in the units (e.g., metric, imperial systems) specified on the drawing, DPD, unless otherwise approved by Collins.  
  
AS9102 includes several additional requirements.

10. Designed/Qualified Tooling: (CR)  
When design tooling or specially designed tooling, including Numerically Controlled (NC) programming as a media of inspection, is used for attribute acceptance of the characteristic; record the tool identification number. When qualified tooling is used for attribute acceptance, record the gauge value or range (e.g., minimum/maximum value), as applicable.

# MODULE 3

## Knowledge Check, Question 1

- Which AS9102 fields are used to document nonconforming product? Select all that apply.

– Form 1, field 19

– Form 1, field 8

– Form 2, field 8

– Form 3, field 11

*Does FAIR Contain a Documented Nonconformance(s)?*

*Additional Changes*

*(Material or Process) Supplier*

*Nonconformance Number*

*All but Form 2, field 8, apply.*

# MODULE 3

## Knowledge Check, Question 2

- What are the names of the forms specified by AS9102? Select all that apply.
  - FORM 1 - PART NUMBER ACCOUNTABILITY
  - FORM 2 - PRODUCT ACCOUNTABILITY - MATERIALS, SPECIAL PROCESSES, AND FUNCTIONAL TESTING
  - FORM 3 - CHARACTERISTIC ACCOUNTABILITY, VERIFICATION, AND COMPATIBILITY EVALUATION
  - FORM 4 - SUPPORTING DOCUMENTATION

*There are three forms defined by AS9102. Supporting documentation is also required, but no form exists with that name.*

# SUPPLIER FAI REQUIREMENTS

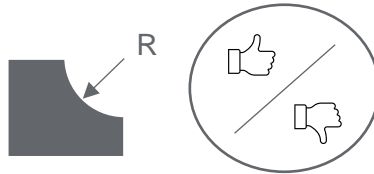
## Form 3 – Additional Information for Field 9, Results (per AS9102)

Ø.250" +/- .010"  
(4 places)

Option A:  
.248, .251, .245, .255

Option B:  
.245 to .255

### 1. Multiple Characteristics



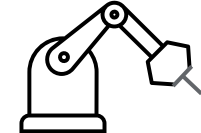
Record the results as an attribute (e.g., pass/fail)

### 2. Qualified tooling as go/no-go gauge



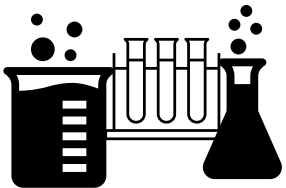
Only identified as pass/fail when the attached results are clearly traceable to the characteristic numbers.

### 3. Automated inspection results



A coordinate measuring machine (CMM) report only depicting deviation from nominal in multiple axes is not acceptable

### 4. CMM report shall reflect an actual geometric value

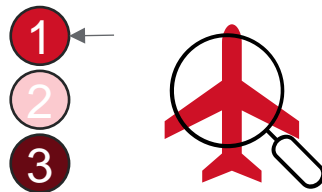


Option A: record the actual results

Option B: record as attribute (e.g., pass/fail)

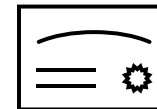
Always: include a copy of the test report or certificate of test, when available

### 5. Verification Testing



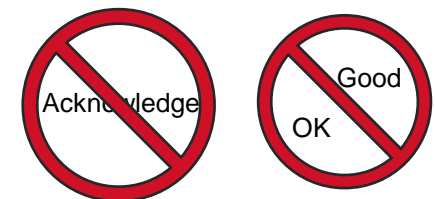
List the unique identifier of the closest comparison.

### 6. Visual Verification against a standard / master sample



Include a statement of conformance (e.g., certification of conformance, verification indicator).

### 7. Process verification



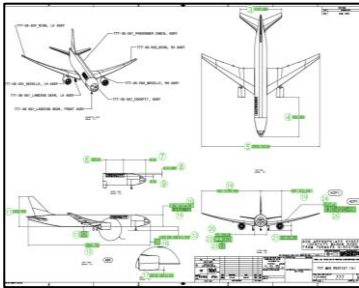
### 8. For characteristics verified by attribute inspection, include statement of conformance (e.g., accept).

# SUPPLIER FAI REQUIREMENTS

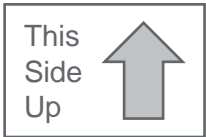
Supporting Documentation, per COL-ASQR-WRK-0001, Table 5-4

The image shows three AS9102 forms. Form 1 is a Part Submission Approval form, Form 2 is a Process FMEA form, and Form 3 is a Material Performance Test Results form. They are all filled out with various data points and signatures.

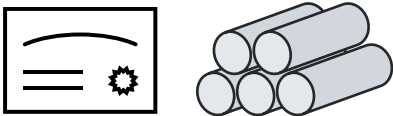
1. AS9102 Forms 1, 2, & 3 (R)



2. Ballooned Documents (R)



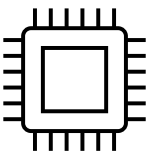
3. A photograph or replication of Part Marking (CR)



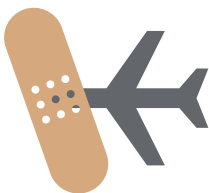
4. Certifications for all material(s) (CR)



5. CoC for all special processes with revision(s) used. (CR)



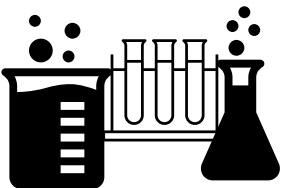
6. CoC and/or traceability documentation for all COTS items. (CR)



7. Copies of approved nonconforming material documentation. (CR)

ECPR, COL-ASQR-FRM-0002, MAAA, ADCN, DCN, CCS, QN

8. Supporting Change Documentation associated with the FAI part. (CR)



9. Test Report(s)

# MODULE 3

## Knowledge Check, Question 3

- The part mark photo or replication must include the serial number shown in Form 1, field 3, serial number.
  - True
  - False

*This statement is true. If the FAI part is serialized, the serial number is entered in Form 1, field 3. The photograph or replication of Part Marking required by COL-ASQR-WRK-0001 must show the same serial number.*

# MODULE 3

## Knowledge Check, Question 4

- If an assembly contains COTS items, enter a certification traceability number for each COTS item in Form 1, field 18.
  - True
  - False

*This statement is true. COL-ASQR-WRK-0001 requires a certification traceability number to be entered for COTS items in Form 1, field 18.*

# MODULE 3

## Knowledge Check, Question 5

- Which items are required by COL-ASQR-WRK-001 to be included in supporting documentation, if applicable to the FAI part? Select all that apply.
  - Completed Forms 1, 2, & 3 per AS9102
  - Collins purchase order for the FAI part
  - CoC for all special processes with revision(s) used
  - CoC and/or traceability documentation for all COTS items

*COL-ASQR-WRK-0001 requires nine (9) documents to be included in supporting documentation, when applicable to the FAI part. Documents include:*

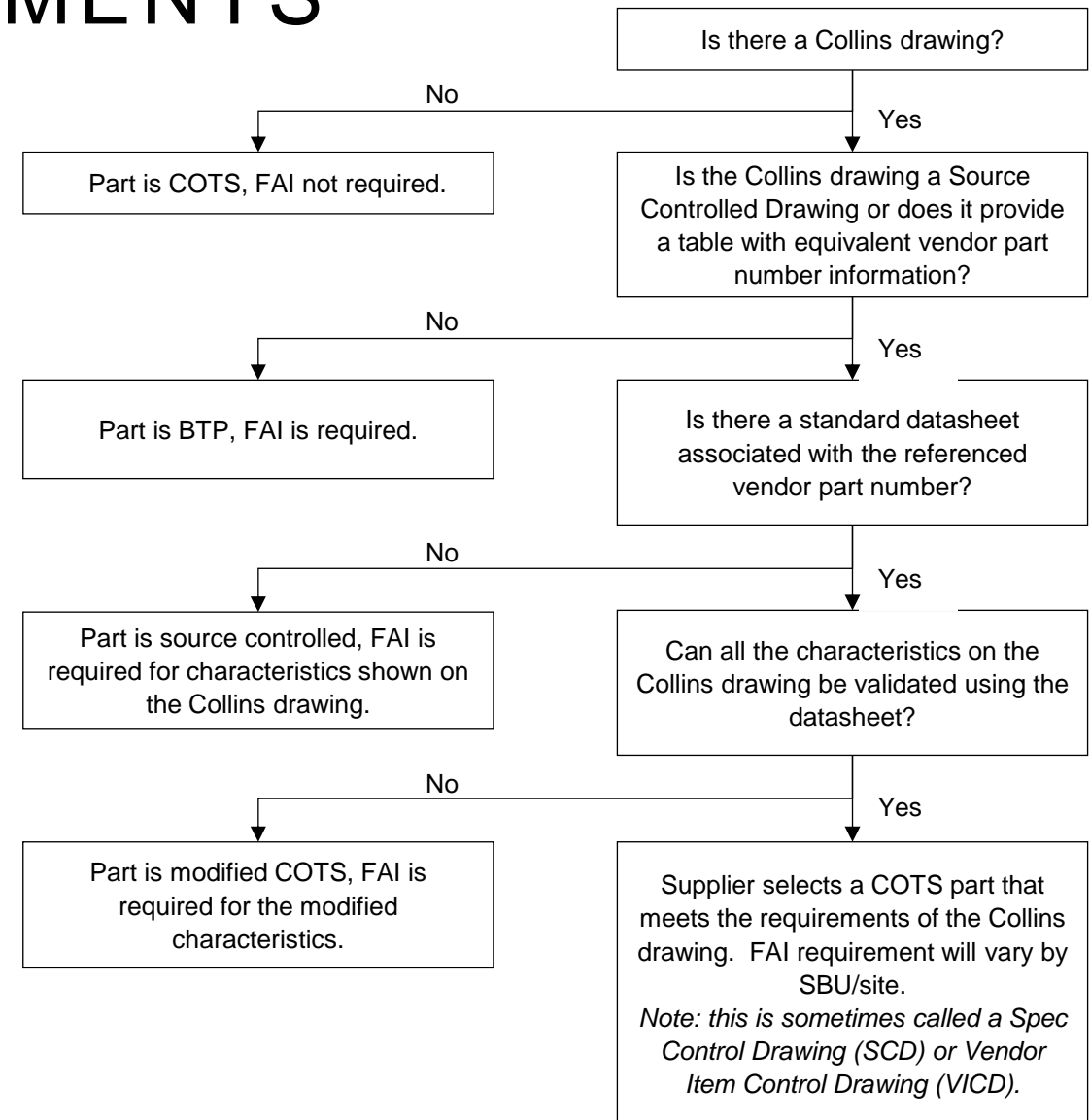
- *the completed AS9102 Forms 1, 2, & 3;*
- *CoC for all special processes with revision(s) used; and*
- *CoC and/or traceability documentation for all COTS items.*

*The Collins purchase order is not required by COL-ASQR-WRK-0001 but may be required in the SBU-level flow down.*

# SUPPLIER FAI REQUIREMENTS

## Guidance for Part Type Definition

This decision tree is a guide to assist suppliers in determining if FAI will be required for a part or assembly. Although this guidance is generally accurate, consult quality requirement flow-downs for part-specific FAI requirements.



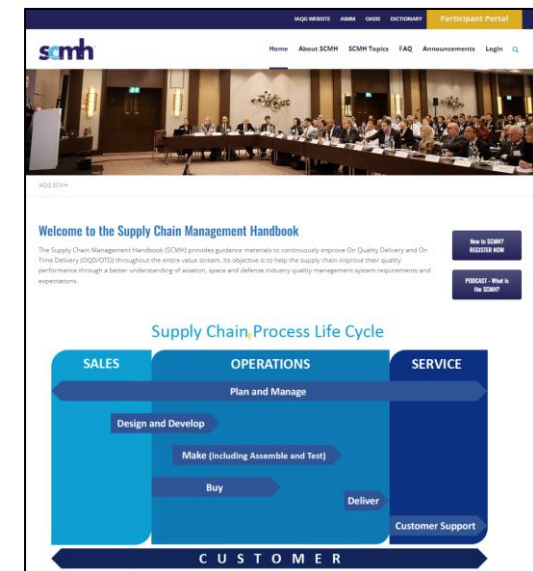
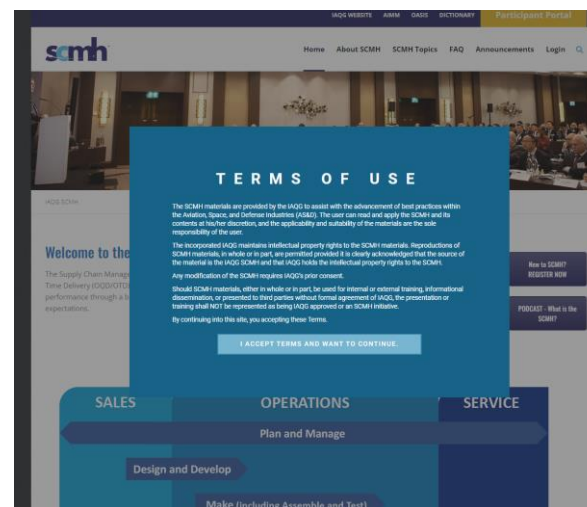
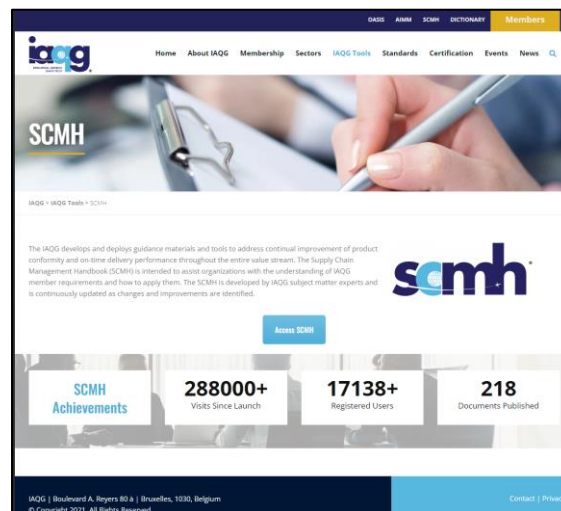
# MODULE 4

Contact & Reference Info

# SUPPLIER FAI REQUIREMENTS

## Contact / Reference Information

- For questions / interpretation of AS/EN/SJAC9102, supplier should first consult the Supply Chain Management Handbook published by IAQG and available online as public information at <https://iaqg.org/tools/scmh/>.



- If further assistance is needed, contact the Collins buyer.



**Collins Aerospace**  
An RTX Business

THANK YOU!