Supplier Requirements
For
First Article Inspection Reports

Prepared By

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65 Spit Brook Road
Nashua, NH 03061

Document Change History

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<tr>
<td>06/11/2019</td>
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<td>Remove AS9102 Redundancies from the document</td>
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<td>Revised Form 1, Field 4: FAIR number to Conditionally Required (CR)</td>
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<td>Removed Form 1 Field, 18 SCI/ COTS validation requirement</td>
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<td>Added Form 3, Field 8 Basic dimension verification is required</td>
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<td>Removed Form 3, Field 9 Inspection results verbiage criteria.</td>
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<td>“Comply,” or “Accept,” “Conform,” and “Acknowledge”</td>
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<td>Removed Form 3, Field 8 Basic dimension verification is required</td>
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1. Scope and General Requirements

This document outlines BAE Systems requirements for First Article Inspection (FAI). This document and AS9102 are applicable, in full, to all designated product(s) intended to satisfy BAE Systems purchase order(s). First Article Inspection Reports (FAIRS) submitted to BAE Systems shall comply with the process and requirements stated in AS9102 and this document. In the event of a conflict between AS9102 and this document, this document shall take precedence.

- BAE Systems provide an FAI Plan as guidance in Appendix A. FAI Plans may require review.
- This document applies to all purchased or manufactured assemblies, sub-assemblies, detail parts including castings, forgings, machined items, BAE Systems designed tooling, and only the modifications to Standard Catalogue Items (SCI) and Commercial-Off-the-Shelf (COTS) items.
- Supplier shall submit a FAIR traceable back to the part number, hardware, and drawing revision levels listed in the BAE Systems purchase order.
- All Lower Level FAIRs shall be included with the upper level FAIR. Lower level items include but not limited to:
  - All levels of designed part(s) specifically manufactured to be used in the FAI Part.
  - External and internal manufactured part(s) (BAE Systems and Supplier Designed).
  - Modified or altered SCI/COTS.
- Raw Material and Special Process Certifications must match requirements on the BAE Systems drawing, and be included in the FAIR package. NADCAP and/or BAE Systems accredited processors shall be used when Source Approval requirement(s) are identified on BAE Systems purchase order.
- In addition to AS9102, a Full or a Partial FAI shall be performed and submitted for affected characteristics, when any of the following CHANGE(S) occur:
  - Design characteristics affecting form, fit or function of the part (revision level change). If no change to form, fit, or function, only Form 1 is required to identify clerical changes.
  - Source(s) supply for product or service (manufacturing source, special process source).
- Partial FAIR submissions are required for changes to tabulated drawings (e.g. list of parts and (-) conditions). If that change does not affect hardware part(s) listed on the PO; it is permitted to submit only Form 1 stating in Field 14 the reason for Partial FAI and note this was not affected by the change/revision. Additional Field 14 instructions do apply.
- A balloon drawing shall be created and is required for every FAIR submission. Reference Appendix B & D.

2. FORM 1 – Part Number Accountability

Note: See Appendix B for example

Field Identifier Legend:

(R) – Required: This is mandatory information.

(CR) – Conditionally Required: This field shall be completed, when applicable to the product (e.g., serial number shall be entered when the product has an associated serial number) or required by the customer. Otherwise leave field blank or enter N/A.

(O) - Optional: This field is provided for convenience; the field may be left blank.
BAE Systems Purchase Order Information is used for Field 1, 2, 5, 7, 10, 11, and 12.

1 thru 4 Fields are repeated on all forms for convenience and traceability. Changes to 1 thru 4 fields shall be made on each Form 1, 2, and 3.

1. **(R) Part Number**: Record the part number from the Item Number Field of BAE Systems purchase order. **Note**: Supplier’s part number may be listed *underneath* the BAE Systems part number.
   - **Existing Supplier FAIRs**: When the drawing is not under BAE Systems control, then FAI may be performed to the contracted part drawing and Form 1 will reflect the part number on BAE Systems P.O., providing traceability.

2. **(R) Part Name**: Record the Part Name found in the Title Field of the BAE Systems drawing or applicable specification.

3. **(CR) Serial Number**: When applicable, record the Serial number of the part measured for FAIR. Otherwise leave field blank or enter N/A.

4. **(CR) FAIR Number**: Refer to AS9102

5. **(R) Part Revision Level**: Record BAE Systems hardware revision from the BAE Systems purchase order.
   - **NOTE**: Supplier’s part revision level may be listed *underneath* the BAE Systems part revision level.
   - **NOTE**: Asterisks (**D) as shown in in PO example above as part of the hardware revision are optional, these are system generated place holders.
6. **(R) Drawing Number:** Record the drawing number associated with the FAI Part. Typically, BAE Systems drawing numbers are the part number without the suffix.

   **Note:** Supplier’s drawing number may be listed *underneath* the BAE Systems drawing number.

7. **(R) Drawing Revision Level:** Record the drawing revision from the BAE Systems Purchase Order. PO format is Hardware Revision Level / Drawing Revision Level. Record right side revision for the drawing. Ensure the PO and actual drawing revision match.

   **Note:** Supplier’s drawing print revision level may be listed *underneath* the BAE Systems drawing print revision level.

8. **(CR) Additional Changes:** When applicable, record reference numbers of changes incorporated in the product, but not reflected in drawing/part revision level. (E.g. ECO # or accepted Supplier Variation Request # (SVR#)).

9. **(R) Manufacturing Process Reference:** Refer to AS9102

10. **(R) Organization Name:** Refer to AS9102 and as defined below:

    - When an outside company performs the FAI for the supplier or manufacturer, record that company’s name underneath name of the supplier or manufacturer supplying BAE Systems FAI Part and final FAIR.
    - For Distributors, sales offices etc.: FAIRs provided from their suppliers shall comply with this document and can be submitted to BAE Systems for review. Field 10 shall name the BAE Systems purchase order supplier and manufacturer(s) (if different) who performed FAI.

11. **(R) Supplier Code:** Record BAE Systems assigned Supplier ID number or supplier CAGE code.

12. **(R) P.O. Number:** Record BAE Systems Purchase Order number.

    - The BAE Systems PO supplier and manufacturer(s) PO (if different) shall be listed in Field 12.

13. **(R) Detail Part / Assembly FAI:** Check, as appropriate as defined.

    - **Detail FAI:** Does not contain a Supplier Basic Parts List (i.e. a single item).
    - **Assembly FAI:** Contains Supplier Basic Parts Lists of manufactured or procured sub-assemblies, etc., or hardware as called out on the BAE Systems drawing. (E.g., list of lower level parts present that are necessary to manufacture, assemble or maintain a product).

14. **(R) Full FAI / Partial FAI:** Refer to AS9102 and as defined below:

    When a Partial FAI is performed and FAIR is submitted, provide 1) the previous baseline part number (including revision level), 2) the previous FAIR number and 3) the reason for the change, such as design changes, engineering change order, testing, process change, and/or modified COTS.

    When a “Baseline by Similarity” Partial FAI is performed and FAIR is submitted, requirements may be satisfied by a previously approved, Full FAI performed on identical characteristics of similar parts produced by identical means. Record the “Baseline Part Number”, Revision Level and associated FAIR number. Enter the Reason for Partial FAI as “By Similarity”.

    - Differences shall be recorded using FAI Forms 1, 2 and 3, per this document’s instruction.

15. **(CR) Part Number:** Refer to AS9102 and as defined below:

    - **Alternate method:** Generate and attach a separate list that contain these items. State in Field 15, “See attached COTS list.”
    - When BAE Systems or Government supplies Lower level part. (I.e. Customer furnished material (CFM), Government Furnished Equipment (GFE)) complete entries for Fields 16-18.
16. **(CR) Part Name:** Refer to AS9102

17. **(CR) Part Serial Number:** Refer to AS9102

18. **(CR) FAIR Number (Cert No.):** Refer to AS9102 and as defined below:

   - For SCI and COTS items record “COTS Item”. Supplier may also include the identification number of the traceable documentation (e.g. pack slip number or CofC number). CofC is not required to be provided as a deliverable document.
   - When the part listed in Field 15 is a buyer furnished/supplied part, record the document identifier that proves ownership of the part listed. (E.g. Customer Supplied, Government Supplied etc.)
   - The expiration date for all items subject to shelf life requirements shall be current (non-expired) at the time of use. Record the expiration date on the traceable documentation (e.g. packing slip or CofC). If the date on which the FAI was prepared is later than the date of expiration recorded, record the date the material was used on the traceable documentation.

**Note:** It is the organization’s responsibility to ensure and verify all SCI/COTS items are utilized in the FAI Part and are identical to BAE Systems Supplier Basic Parts List and are traceable to the Original Component Manufacturer(s). BAE Systems reserves the right to review (i.e. audit), verify and request supporting documentation IAW AS9102 Section 4.5.

When part(s) recorded in field 15 are considered a material (e.g. solder, epoxy, aluminum), it is permitted to state “refer to Form 2” in this field. All material shall be recorded in Form 2 per section 3.

19. **(R) Signature:** Provide a legible printed name with a signature. Unique identification, such as a stamp, employee ID# may be included in addition. All signature fields must include printed name and signature. Examples of acceptable signatures shown in Appendix D. The signee in this field certifies the FAI performed is compliant to this document and approves the FAIR.

   **Note:** Electronic signatures are acceptable. (Ref. Electronic Signature Definition in Appendix D)

   - Record “FAI Complete”, if all design features, configured items, materials, processes and characteristics are conforming. Record “FAI Not Complete”, if any discrepancy is found and/or characteristics are nonconforming, notify BAE Systems

   Buyer and submit a BAE Systems Supplier Variance Request (SVR) form for approval (form located on BAE Systems Supplier Center website referenced on Purchase Order). Once approved, record the SVR number in Form 1 Field 8 and as required Form 3 Field 14.

   - FAIRs marked “Not Complete” as a result of product nonconformance, such as violating a design (drawing) characteristic, may allow for product delivery only when the SVR permits. Include approved SVRs containing disposition by BAE Systems with shipment of hardware.

   - Record the nonconformance document reference number on Form 3 (see Field 11). Enter the Supplier’s NC number and BAE Systems SVR number.

   - **NOTE:** BAE Systems approval of an incomplete FAI does not eliminate the requirement for Partial FAI. This document does not control disposition of SVRs or nonconformances.

20. **(R) Date:** Date when Field 19 was signed. Recommend Month/Day/Year (mm/dd/yyyy) format.

21. **(O) Reviewed By:** Refer to AS9102

22. **(O) Date when Field 21 was signed.** Recommend Month/Day/Year (mm/dd/yyyy) format.

23. **(O) Customer Approval:** Leave Blank for BAE Systems use.

24. **(O) Date:** Leave Blank for BAE Systems use.
3. FORM 2 – Materials, Processes and Functional Testing

Note: See Appendix B for Example

Record materials, special processes, or functional testing required by the drawing or specification.

1 thru 4 Fields are repeated on all forms for convenience and traceability. Any changes to 1 thru 4 field shall be made on each Form 1, 2 and 3.

Note: For Altered/Modified SCI/COTS Only

- Record SCI/COTS part information and specification information, as procured, in Field 5, 6, 8, 9 & 10 of Form 2. This information is prior to its modification. Recorded information in these fields are considered the “material information” since the SCI/COTS item is incorporated into the FAI Part (Field 1 of Form 1). Refer to Form 2 instructions for additional information.

- Any specification or drawing associated with the FAI Part, other than SCI/COTS industry standards, are applicable documents that shall be ballooned and assigned a unique identifier as per this document’s requirements listed in Form 3.

5. (CR) Material or Process Name: Refer to AS9102 and as defined below:

- Altered/Modified SCI/COTS: Record the industry standard’s description of the procured SCI/COTS item. This entry defines the SCI/COTS item as a material incorporated into the FAI Part (Field 1, Form 1). Form 2 instructs entries for materials during FAI.

- For all special processes (i.e. gold, nickel, tin, copper, etc.) the supplier is responsible to certify to the specification such as MIL, J-STD, ASTM, AMS or IPC within the BAE Systems Technical Data Package (TDP). The individual or constituent components of the bath/chemical process do not need to be provided as part of the FAIR (Form 2).

- BAE Systems Designated Special Processes: All Methods, Types, Grades and Classes of brazing, heat treating, painting/coatings, plating (electro & electroless), Non-Destructive Testing (NDT), welding, coatings on composites and various chemical processes. See Appendix C for BAE Systems recognized special process list.

6. (CR) Specification Number: Refer to AS9102 and as defined below:

- All specifications must exactly match the Supplier provided documentation (Reference Field 8 and 9, Form 3 instructions).

If Specifications do not match the BAE Systems drawing, submit an approved SVR prior to FAIR Submission.

If a BAE Systems drawing has a Cancelled, Superseded or Obsolete Specifications:


- Record the actual Specification used in Field 6.

- Record obsolete specification below the actual specification used.

- If the replacement process is listed in A86397 and QA Code 190 applies, then no SVR required.

- If the process used is not listed in A86397, then an approved SVR is required prior to submitting the FAIR and the approved SVR # is listed in Form 1 Field 8.


8. (CR) Supplier: Refer to AS9102. When the location of the source is present on the document identifier the address may be omitted.
9. **(CR) Customer Approval Verification:**
   - Enter “Yes” if source approval is required by specification or BAE Systems Purchase Order QA code(s) and the approved source was used.
   - Enter “No” if source approval is required and the source is not approved; requires an SVR.
   - Enter “NA” if customer approval is not required

   Field 9 requires a review and determination of sourcing requirements for each entry of special process and material. Quality Codes listed in BAE Systems Purchase Order may require BAE approved and/or NADCAP approved sources. Drawings and specifications for the FAI Part may require a specific source of material.

10. **(CR) Certificate of Conformance Number (CofC):** Enter the applicable unique document identifier from the document providing evidence of compliance to the entry in Field 5, 6, 8 and 9 (e.g. cert #, lot #, PO #, lab test #). Include this document in the FAIR submission. The results, compliance and/or conformity information stated within the document shall match the BAE Systems drawing/specification requirement(s).

   - For **raw materials** used within the FAI part the documentation shall demonstrate the validation of the material used (e.g. certs, lab test reports). The documentation shall consist of Mill Certs (point of origin) and distributor certs or meet the requirements of BAE Systems QA code 175.
     - For each **special process** used on the FAI part to achieve a design feature and/or drawing characteristic include validated objective evidence.
   - The expiration date for all shelf life materials incorporated into the FAI part shall be current (non-expired) at the time of use. Record the expiration date on the traceable documentation (e.g. packing slip or CofC). If the date on which the FAI was prepared is later than the date of expiration recorded, record the date the material was used on the traceable documentation.

11. **(CR) Functional Test Procedure Number:** Record the Test Procedure Number and revision used to validate drawing/specification requirements. The results of the test procedure are recorded in a BAE Systems approved Acceptance Report. Record related qualification report #, software procedure #, and Test Equipment Set up Reference numbers, if applicable. All revision levels to be specified.

12. **(CR) Acceptance Report Number:** Required to be completed when functional testing is conducted. The report is traceable back to the required test results from the BAE Systems drawing.

   - Record the report number; include the actual test report with the FAIR.

13. (O) Comments: As needed.

14. **(R) Signature:** The signee in this field represents the person from the organization who completed and approves Form 2. Provide a legible printed name with a signature. Unique identification, such as a stamp, employee ID# may be included in addition. All signature fields must include printed name and signature. Examples of acceptable signatures shown in Appendix D.

   **Note:** Electronic signatures are acceptable. (Ref. Electronic Signature Definition)

15. **(R) Date:** Date when Field 14 was signed. Recommend Month/Day/Year (mm/dd/yyyy) format.
4. FORM 3 – Characteristic Accountability, Verification and Evaluation.

This form is used to record inspection results for the design characteristics and document any applicable nonconformances (see Appendix B for example).

1 thru 4 Fields are repeated on all forms for convenience and traceability. Any changes to 1 thru 4 field shall be made on each Form 1, 2 and 3.

5. (R) Char. No.: Refer to AS9102 and as defined below:

   - The supplier shall include a Ballooned/Bubble product drawing(s) clearly traceable to the characteristic number listed in Field 5. Individually identify all dimensional characteristics, drawing notes, specification requirements and any requirements shown in title fields of a drawing. See Appendix B.

   - Tables within a drawing may contain multiple features. Each feature within the table shall be accounted for in Field 8. Accomplishment may be completed individual characteristic or as one characteristic for the entire Table. Follow Field 8 and 9 instructions. Reference Appendix E for Tables containing bent configurations.

6. (CR) Reference Location: Refer to AS9102. Note: Drawings that do not contain Grid Zones, record the sheet/page number.

7. (CR) Characteristic Designator: When applicable, record information that adds clarity to the report. Otherwise, leave blank or enter N/A.

   Note: Typically indicated through PO/Contract or drawing requirements

8. (R) Requirement: Refer to AS9102 and as defined below:

   - Requirements within Tables shall be accounted for and recorded as identified, reference Field 5 for characteristic identification. Field 9 inspection results shall account for all features within a table. Reference Appendix E for Tables containing bent configurations.

   - Record tolerances of each feature when it is stated in a design feature, such as a control frame feature.

     o Record tolerances as stated within the design feature or use an alternate method to record upper and lower specification/tolerance limit, which is identical in comparison to design the feature/characteristic.

     o Dimensions that are tolerated by the Title Field of the drawing and do not contain a tolerance within the design feature may be recorded without a tolerance only when Ballooned Drawing(s) and/or Specification(s) are included with the FAIR.

   - When recording requirements from a drawing for Threaded Features; Major and Minor Diameter, per Machinery’s Handbook, shall be recorded in addition to Thread Size. (E.g. 8-32 UNC 2B (INTERNAL) – MINOR DIAMETER - 0.130 Min, 0.139 Max 8-32 UNC 2A (EXTERNAL) – MAJOR DIAMETER – 0.1631 Max, 0.1571 Min). Refer to Field 9 for recording and verification of Threaded Features.

   - True Position is recorded per drawing requirements. When True Position utilize Maximum Material Condition and/or Least Material Condition (MMC/LMC), include the features’ Bonus Tolerances. See Terms and Definitions Appendix D.

   - Record part marking per applicable specification(s); every design feature of the drawing note/specification for marking shall have inspection results. Some results may vary between attribute and variable data depending on each feature within the note. Reference Appendix B for some examples of how marking may be recorded.
• Digital Product Definition (DPD) design characteristics shall be extracted and included in Form 3 as design characteristics.

• Basic and Reference dimensions on the drawing are optional and may be documented on Form 3, but are not required to be identified. If included these are subject for review and disposition.

9. (R) Results: Refer to AS9102 and as defined below:

• Characteristics not measurable in the final product, also known as hidden characteristics, shall be recorded. Inspection shall be verified during the manufacturing process of the lower level part. Record FAIR # and its characteristic number from the lower level FAIR.

• Reference Appendix E for Tables containing bent configurations.

• When recording inspection and verification results for Threaded Features and for threaded holes prepped for hardware installation (e.g. Helicoils or other threaded inserts) major and Minor Diameter, per Machinery’s Handbook and NASM33537 for helicoils, shall be recorded in addition to Thread Size. (E.g. 8-32 UNC 2B (INTERNAL) – MINOR DIAMETER - 0.130 Min, 0.139 Max. 8-32 UNC 2A (EXTERNAL) – MAJOR DIAMETER – 0.1631 Max, 0.1571 Min). See example below.

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<tr>
<td>1a</td>
<td>S1 H-8</td>
<td>8-32UNC 2B</td>
<td>Pass/Fail</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>S1 H-8</td>
<td>Internal</td>
<td>Ø 0.130” – 0.139”</td>
<td>Ø 0.135”</td>
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</table>

• When automated inspection/tooling measurement is used to record pass/fail results, Coordinate Measuring Machine (CMM) or any automated inspection report shall be attached with the FAIR (Refer to Field 10).
  - All characteristic numbers shall be linked in the attached report.
  - The results in the attached reports shall be traceable to the characteristic numbers.
  - The results are directly equivalent to the design characteristic.

NOTE: Coordinate Measurement Machine (CMM) data alone would not be acceptable for a positional tolerance; the results shall show the actual positional value. CMM positional values (results) do not need to be listed on form 3 if these values are listed in the CMM report.

• When characteristics listed in the drawing are validated, using document listed in Form 2, such as Finish or Material; Record applicable unique identifier from the document (e.g. cert #, lot #, PO #).

• When a design feature is verified using attribute result (e.g. pass/fail) make reference to “What” in the process or product has shown evidence of compliance to the design, such as a reference to internal command media or work order steps. Supporting Information may be recorded in Form3, Field 14.

• Verify part marking is legible, correct in content, size, and properly located per applicable specification(s). Every design feature of the drawing note/specification for marking shall have inspection results. Some results may vary between attribute and variable data depending on each feature within the note.
10. **(CR) Designed / Qualified Tooling**: Refer to AS9102 and as defined below:

   - Standard Measuring Equipment (SME) used for variable measurement results (i.e. Plug gages, Deltronics, Thread gages, Height gages, Bore Micrometers, Vernier Calipers, Micrometers, Super Micrometers) identification numbers are not required to be listed in Form 3, Field 10.

11. **(CR) Nonconformance Number**: Record nonconformance document reference number. Enter the Supplier’s NC number and BAE Systems SVR number.

   **Note**: When nonconformance is found during FAI process with Form 1 (i.e. BOM) and/or Form 2 (i.e. material/process) an NC is required and BAE Systems SVR process is required. A new line of Form 3 may be used to record the requirement in Field 8 and the finding in field 9 and enter the Supplier’s NC number and/or BAE Systems SVR number in Field 11.

12. **(R) Signature**: The signee in this field represents the person from the organization who completed and approves Form 3. Provide a legible printed name with a signature. Unique identification, such as a stamp, employee ID# may be included in addition. All signature fields must include printed name and signature. Examples of acceptable signatures shown in Appendix D.

   **Note**: Electronic signatures are acceptable. (Ref. Electronic Signature Definition)

13. **(R) Date**: Date when Field 12 was signed. Recommend Month/Day/Year (mm/dd/yyyy) format.

14. **(O) Additional Data / Comments**: refer to AS9102
Appendix A – FAI Planning requirements

1. Purpose:
   The purpose of an FAI plan is to document the activities to achieve the minimum requirements for the supplier to successfully complete the FAIR per AS9102 and BAE Systems Specification B25279.

2. Requirements:
   - The supplier shall have a process to plan for completion of the required FAI or shall plan FAI activities prior to the first production run.
   - FAI planning shall address the activities to be performed throughout the FAI / manufacturing process and define the responsible groups of those activities.

3. General:
   The supplier should consider the sum or all of the following activities during FAI planning and coordinate planning with BAE Systems, if required:
   - Review all documentation required to perform production of the product:
   - Routing / Work Order documentation Process Sheets / Work Instructions for performance of work
   - All required external Material and processing identifies the correct material specifications and specifications called out in the TDP package.
   - CMM manufacturing equipment programs are controlled and at the correct revision levels for the product being manufactured.
   - Inspection points to be performed on product based on processing steps (e.g. machining, heat treating, plating, assembly, painting, marking, etc.) especially if all characteristics are not measurable on the final product.
     - Evaluate design characteristics within 2D drawings or within models or CAD files (e.g. digital product definition).
     - Verify all design characteristics are accounted for in the FAIR and determine whether Variable, Attribute, or Compliance data is required.
     - Assess what objective evidence will be provided with the FAIR for compliance of the features / characteristics, whether performed internally or outsourced to a sub tier supplier.
     - Some characteristics are measurable and others are performed by process steps requiring certifications or test.
     - Determine if contract specific Special Process Suppliers are required to be used and that all TDP information is flowed to those sub tiers for compliance to drawing / specification requirements with required objective evidence.
     - Determine if drawings call out Key Characteristics (AS9103) and how they will be planned for.
     - Determine what tooling and gaging will be required to perform the FAI and product compliance inspections. Ensure all items used to verify compliance to the Technical Data Package (TDP) are identified, controlled and meet required calibration requirements.
     - Determine whether a Full or Partial FAIR is required based on previous production activities of this part.
ix. Determine whether assembly items on any Supplier part list or BAE Systems supplier basic parts list parts list are COTS, Modified COTS, MIL SPEC, or Build to Print items and if FAIR’s are required to be provided with the part number being produced.

f. When an FAIR is required on Items built/procured to a specification controlled document include all items in the build per the manufacturer’s (supplier’s) parts list/Bill of Material.

g. Determine whether BAE Systems on site approval or preapproval of FAIR’s are required by purchase order.
## FORM 1 – PART NUMBER ACCOUNTABILITY

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<td>1. Part Number</td>
<td>2. Part Name</td>
<td>3. Serial Number</td>
<td>4. FAIR Number:</td>
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<td>(if there is no FAIR number then leave field blank or enter N/A)</td>
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<td>(Title Block DWG)</td>
<td>(BAE Systems PO DWG Rev)</td>
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<td>(PO Supplier Name)</td>
<td>(BAE Supplier ID or Cage code)</td>
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<tr>
<th>13. Detail Part:</th>
<th>14. Full FAI: X</th>
<th>Partial FAI: X – For partial FAIR-Provide Baseline Part number, Revision and FAIR # (BAE number) of previous FAI</th>
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<tr>
<td>Assembly FAI:</td>
<td></td>
<td>Baseline Part Number (including revision level): Ex: 809xxxx-1 Part Rev A, Drawing Rev R (FAIR #1804)</td>
</tr>
</tbody>
</table>

Reason for Partial FAI: List the reason for the Partial FAI

a) if above part number is a detail part only, go to Field 19
b) if above part number is an assembly, go to the "INDEX" section below.

### INDEX of part numbers or sub-assembly numbers required to make the assembly noted above.

All materials on the BOM Or Parts List should listed here

<table>
<thead>
<tr>
<th>15. Part Number:</th>
<th>16. Part Name:</th>
<th>17. Part Serial Number:</th>
<th>18. FAIR Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8xxxxx15-1</td>
<td>Chassis</td>
<td>0563</td>
<td>DM15922 FAIR# of lower level MAKE FAI Part.</td>
</tr>
<tr>
<td>8xxxxx30-1</td>
<td>0003, Cover, Top</td>
<td></td>
<td>01-12068 FAIR# of lower level BUY FAI Part.</td>
</tr>
<tr>
<td>M55342K11B150ER</td>
<td>0075 RES, CHIP, 150K OHMS, 0402, 1%,50MW PRM</td>
<td>New Change for Rev F For SCI and COTS items record “COTS Item” and the identification number of the traceable documentation (e.g. pack slip number or CofC number)</td>
<td>Pack List - 2456789</td>
</tr>
<tr>
<td>NAS620-2</td>
<td>0078 Washer PRM</td>
<td>COTS Item</td>
<td></td>
</tr>
<tr>
<td>NA0069</td>
<td>Screws, Cap, Hexagon Socket Head, Full Thread, A286, 1100MPa</td>
<td>CofC - 07352318456</td>
<td></td>
</tr>
</tbody>
</table>

See attached COTS Parts List or BOM

<table>
<thead>
<tr>
<th>19. Signature:</th>
<th>20. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>____FAI Complete ____FAI Not</td>
<td></td>
</tr>
</tbody>
</table>

Complete Upon completion check “FAI Complete,” If FAI NOT complete: Submit SVR to BAE Systems. SVR and instructions can be found at www.baesystems.com/suppliercenter

<table>
<thead>
<tr>
<th>21. Reviewed By</th>
<th>22. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Supplier FAI preparer print and sign, unique identifier may be included in addition)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>23. Customer Approval</th>
<th>24. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Leave blank for BAE Systems Signature)</td>
<td></td>
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</tbody>
</table>
### Form 2: Product Accountability – Material, Special Processes & Functional Testing

<table>
<thead>
<tr>
<th>1. Part Number:</th>
<th>2. Part Name:</th>
<th>3. Serial Number:</th>
<th>4. FAIR Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>809xxxxx-1</td>
<td>Cover, Bottom</td>
<td>0025</td>
<td>1001</td>
</tr>
<tr>
<td>(BAE Systems PO Item number)</td>
<td>(BAE Systems Title Block from DWG)</td>
<td>(if there is no SN then leave field blank or enter N/A)</td>
<td>(if there is no FAIR number the leave field blank or enter N/A)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of process / Raw material</td>
<td>MIL/ ASTM STD from Drawing</td>
<td></td>
<td>Name of sub-tier supplier of Raw materials or process</td>
<td>N/A when No approval required.</td>
<td>Unique identifier traceable to CofC to provide in the FAIR. For materials batch/lot number</td>
</tr>
<tr>
<td>Aluminum</td>
<td>6061 T6511, ASTM B2221 (Form Bar)</td>
<td></td>
<td>Great Metal Inc</td>
<td>N/A</td>
<td>Heat Lot: 44477</td>
</tr>
<tr>
<td>Nickel Plating</td>
<td>AMS2404F, Type 1 Class 2</td>
<td></td>
<td>ABC Corp</td>
<td>Yes</td>
<td>934526</td>
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<tr>
<td>Loctite 84</td>
<td>Material 195778</td>
<td></td>
<td>Acme Corp</td>
<td>N/A</td>
<td>Batch: LN5CAB6004</td>
</tr>
<tr>
<td>Heat treat</td>
<td>AMS2759/3</td>
<td></td>
<td>ABC Corp</td>
<td>Yes</td>
<td>455455</td>
</tr>
</tbody>
</table>

#### 11. Functional Test Procedure Number:

Traceable to Acceptance Report Results

#### 12. Acceptance Report Number:

Indicate pass or fail. Attach document with FAI package

ATP 56793 Rev C

T34609 – Pass; See attached report

#### 13. Comments (Use as needed)

14. Signature

Supplier FAI preparer print and sign, unique identifier may be included in addition.

15. Date

AS9102 Rev B FORM 2
### FORM 3: CHARACTERISTICS ACCOUNTABILITY, VERIFICATION AND COMATIBILITY EVALUATION

<table>
<thead>
<tr>
<th>1. Part Number</th>
<th>2. Part Name</th>
<th>3. Serial Number</th>
<th>4. FAIR Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>809xxxx-1</td>
<td>Cover, Bottom</td>
<td>0025</td>
<td>1001</td>
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</tbody>
</table>

#### Characteristic Accountability

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#### Inspection / Test Results

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<th>10.</th>
<th>11.</th>
<th>12.</th>
<th>13.</th>
<th>14.</th>
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</table>

#### Optional Fields

<table>
<thead>
<tr>
<th>15.</th>
<th>16.</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>

**AS9102 Rev B FORM 3**
Balloon Drawing Example

NOTES:

1. ANODIZE BLUE PER XYZ-50.
2. BREAK ALL SHARP EDGES TO .05
3. INSPECT PER XHJ-5250.

4. .325±.020
5. .618±.020
6. .680±.020
7. .750±.020
8. 48.56°
9. .020 A B C
10. [.010 A B]
11. 2.875±.020
12. 3.503
13. 3.503
14. .005 A
15. 3.496
16. [.635±.051]
17. .250±.020
Appendix C - Special and Chemical Processing

BAE Systems considers the following as “Special Processes”:

All Methods, Types, Grades and Classes of brazing, heat treating, painting/coatings, plating (electro & electroless), non-destructive testing (NDT), welding, coatings on composites and various chemical processes.

Chemical Processing includes, but is not limited to, processes listed in the following table:

<table>
<thead>
<tr>
<th>Electroplating</th>
<th>Electroless Plating</th>
<th>Chemical Milling</th>
<th>Chemical Etching</th>
<th>Alu Chromic Anodizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Sulfuric Anodizing</td>
<td>Alu Sulfuric Anodizing</td>
<td>Ti Sulfuric Anodizing</td>
<td>Mg Anodizing</td>
<td>Alu Conversion Coating</td>
</tr>
<tr>
<td>Mg Conversion Coating</td>
<td>Phosphate Conversion</td>
<td>Passivation</td>
<td>Electrolytic Polishing</td>
<td>Cadmium Brush Plating</td>
</tr>
<tr>
<td>Alu Brush Anodizing</td>
<td>Brush Plating</td>
<td>Brush Anodizing</td>
<td>Primer on Composite</td>
<td>Primer on Metal</td>
</tr>
<tr>
<td>Paint system on Metal</td>
<td>Paint system on Composite</td>
<td>Dry Film Coatings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D - Terms and Definitions

BAE Systems Specific Documentation & Terms


Assembly FAIR: A First Article Inspection Report generated from an assembly or sub-assembly. Assemblies contains a list of manufactured or procured parts, components or sub-assemblies used in the FAI part. When applicable, the list includes items called out in the BAE Systems part drawing, BAE Systems Supplier Basic Parts List, BOM, etc.

Ballooned Drawing: See Appendix B. While conducting the FAI a ballooned drawing is used to identify each characteristic within the drawing. Every dimension and note, including surface finish, material, hardness, etc. callouts, are marked with a unique identifier such as a number that is circled. Each identifier corresponds to the FAI Form 3 Fields 5-11 and 14 as required. The purpose of ballooning a drawing is to ensure accuracy and completeness and to establish a standard and organized routine to collect drawing requirements and their inspection results; proving objectively each drawing requirement is met.

Bonus Tolerance: Bonus tolerance = true position tolerance (measured hole size – MMC hole size). The further you are from Maximum Material Condition (MMC) when it is referenced in the feature control frame, the more bonus tolerance allowed. (e.g. for a hole, the larger the diameter, closer to the Least Material Condition (LMC) the more bonus tolerance allowed for true position.)

Detail Part: A part that does not require a list of parts necessary to manufacture, assemble or maintain a product. (i.e. a single material used to make a FAI part.)

Electronic Signature: Signature, symbol, or data in digital format indicating acknowledgement by a specific person. Electronic signatures shall be controlled and traceable to the individual who performed the acknowledgement. Example of Acceptable Electronic Signature Shown below:

Digital Signature (Adobe Example)

![Digital Signature Example]
Location of Manufacture Change: For purposes of this document and to re-accomplish an FAI; Location of Manufacture Change is a physical move of the collective manufacturing process that involves critical manufacturing elements of People, Machine, Method, Material and/or Inspection methods. The continuation of the FAI process shall be repeated when Location of Manufacture changes occur. Reference Form 1 Field 14.

Product: Wherever the term “product” occurs, it can also mean “service”.

Standard Part: parts for which the design, manufacturing, inspection data, and marking requirements of the part are in the public domain and published or established as part of officially recognized standards.

Supplier Variation Request: Nonconformance’s are submitted for approval to BAE Systems using a Supplier Variation Request (SVR) found on www.BAESystems.com/suppliercenter.
Appendix E – Drawing and Bend Tables

Figure 1 below is an example of a table or one very similar that could be present for a FAI. In accordance with this document all design features are required to be identified as a characteristic (Field 5, Form 3), recorded as a requirement (Field 8, Form 3) and contain/record actual inspection results for the individual requirement within the table or to its entirety (Field 9, Form 3).

Drawings/Design features that represent manufacturing information, process instructions and/or bending configurations may be considered as design characteristics and could be treated as reference dimensions, given the following applies to the information contained within the table.

- Dimensions and/features are used for processing setups.
- Dimensions and/features are used as manufacturing aides
- Other design features such as notes, contain requirements for the outputs using the information in the table Reference Figure 2.

Figure 1

![Bend Location Information Table](image)

Figure 2

CONFIGURED CABLE FN 1, IS DEFINED BY CABLE DATA CHART. SURFACE PROFILE TOLERANCE TO BE \[ \pm 0.060 \] ALL ROUND EXCLUDING THE FIRST AND LAST SEGMENTS WHICH ARE +/- .030 IN LENGTH.