APPROVAL SIGNATURE PAGE



REVISIONS

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| --- | --- | --- | --- |
| REV | DATE | CHANGE DESCRIPTION | RELEASE DATE |
|  NC | 07/17/09 | New | 08/05/09 |
| A | 09/03/09 | Refer to 7.4.1(A) | 09/09/09 |
| B | 09/18/09 | Refer to 7.4.1(B) | 10/21/09 |
| C | 08/31/11 | Refer to 7.4.1(C) | 09/01/11 |
| D | 04/26/12 | Refer to 7.4.1(D) | 05/21/12 |
| E | 10/29/12 | Refer to 7.4.1(E) | 11/09/12 |
| F | 10/22/13 | Refer to 7.4.1(F) | 10/30/13 |
| G | 06/16/15 | Refer to 7.4.1(G) | 07/08/15 |
| H | 12/14/17 | Refer to 7.4.1(H) | 01/05/18 |
| J | 02/08/18 | Refer to 7.4.1(J) | 02/20/18 |
| K | 04/08/20 | Refer to the following revision page. | 04/15/20 |
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| PARAGRAPH | CHANGE DESCRIPTION |
|  |  |
| Throughout Document | Is: Collins AerospaceWas: UTASReason: Company name changeIs: RTXWas: UTCReason: Company name changeIs: Collins – FairfieldWas: UPCO / Universal Propulsion CompanyReason: Company name changeIs: Collins AerospaceWas: UTC Aerospace SystemReason: Company Logo |
|  |  |
| 1.1(a) | Is: The purpose of this handbook is to familiarize the supplier with the general requirements and expectations in regard to business transactions between Collins Aerospace Mission Systems Fairfield (hereafter referred to as “Collins – Fairfield”) and its suppliers.Was: The purpose of this handbook is to familiarize the supplier with the general requirements and expectations in regard to business transactions between UPCO and its suppliers. |
|  |  |
| 2 | Is: COMMUNICATIONWas: COMMUNICATION WITH UPCO |
|  |  |
| 2(a)(1) | Is: The Collins – Fairfield Buyer or Delivery Assurance Specialist (hereafter referred to as “Buyer” and “DA” respectively) are the primary points of contact for supplier communications, except as noted herein.Was: The UPCO Buyer is the primary point of contact for supplier communications.Reformatted 2(a)(2) to be NOTE under 2(a)(1). Renumbered subsequent item.Is: For issues dealing with the Purchase Order upon issue, contact the Buyer. For issues dealing with the Purchase order after issuance regarding quantity, delivery or quality, contact the DA.Was: For issues dealing with the Purchase Order, contact the Buyer. |
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| PARAGRAPH | CHANGE DESCRIPTION |
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| 2(a)(2) | Is: The Supplier should not accept any changes to Purchase Order requirements unless authorized in writing by the Buyer or DA.NOTE: The Buyer's name, phone number and email address are on the Purchase Order forms.Was: The Supplier should not accept any changes to Purchase Order requirements unless authorized in writing by the UPCO Buyer.NOTE: UPCO Buyer's name, phone number and email address are on the Purchase Order forms. |
|  |  |
| 2.1(a)(1) | Is: Hover over ”WHO WE ARE”, then hover over ”Doing Business With Us” in the fly-out window and click on “Supplier Resources” in the second fly-out window.Was: Hover over ”WHO WE ARE” located near the top of the web page, then hover over ”Doing Business With Us” in the fly-out window and click on “Join the UTC Team” in the second fly-out window |
|  |  |
| 2.1(b)(1) | Is: Hover over ”WHO WE ARE”, then hover over…Was: Hover over ”WHO WE ARE” located near the top of the web page, then hover over… |
|  |  |
| 2.1(b)(3) | Is: Scroll down and click “PROPULSION” for current Collins – Fairfield documents, including:Was: Scroll down to “PROPULSION” for current UPCO documents, including:Is: Collins – Fairfield (Interiors UPCO UTC) Terms & Conditions AddendumWas: UPCO Terms & Conditions AddendumAdded:Collins Supplier Quality Requirements COL-ASQR-PRO-0003Collins – Fairfield ASRQ-01 Forms Management Standard 8.1.159 |
|  |  |
| 2.2 | Removed. |
|  |  |
| 3(a)(2) | Is: UTC Standard Terms and Conditions of Purchase, the Interiors UPCO UTC Addendum,…Was: UTC Standard Terms and Conditions of Purchase, the Universal Propulsion Company Inc. Addendum,… |
|  |  |
| 3(b)(1) | Removed: SpecificationsAdded: Collins or Customer SpecificationsIndustry Specifications |
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| PARAGRAPH | CHANGE DESCRIPTION |
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| 3(d)(1) | Is: Verify the Ship To address: Universal Propulsion Co., Inc. 3530 Branscombe Road, Fairfield, CA 94533.Was: Verify the Ship To address: UTAC Aerospace Systems 3530 Branscombe Road, P.O. Box KK, Fairfield, CA 94533. |
|  |  |
| 3(d)(2) | Is: Verify the Bill To address: Goodrich Corp., FSS- Propulsion, PO Box 3022, Troy, Ohio 45373-7322Was: Verify the Bill To address: Goodrich Corp., FSS- Propulsion, fss.remitintprop@utas.utc.com |
|  |  |
| 4(a) | Is: Suppliers must meet the following performance criteria as a minimum:Was: The UPCO supplier must meet the following performance criteria as a minimum: |
|  |  |
| 4(a)(2) | Is: Read and understand all requirements contained in the procurement package and contact the Buyer for clarification or to request required drawings or specifications.Was: Read and understand all requirements contained in the procurement package and contact the UPCO Buyer for clarification. |
|  |  |
| 4(a)(9) | Is: Supplier Quality Assurance Requirements (ASQR-01 and COL-ASQR-PRO-0003)Was: Supplier Quality Assurance Requirements (UTAS ASQR-01) |
|  |  |
| 4(b) | Is: Suppliers are encouraged to make any recommendations…Was: UPCO suppliers are encouraged to make any recommendations… |
|  |  |
| 4(c)(3) | Reformatted to be 4(d). Renumbered subsequent items. |
|  |  |
| 4(e)-(g) | Removed. |
|  |  |
| 4(e) | Added. |
|  |  |
| 5 | Is: The Collins – Fairfield mechanism for flowing down quality requirements to suppliers is imposition of Collins Aerospace Supplier Quality System Requirements ASQR-01, Collins Supplier Quality Requirements COL-ASQR-PRO-0003, and Quality Assurance Clauses Form 1135. It is imperative for each supplier to know and understand these quality assurance requirements.Was: The UPCO mechanism for flowing down quality requirements to suppliers is imposition of UTC Aerospace (UTAS) Supplier Quality System Requirements ASQR-01 and the Quality Assurance Clauses of UPCO Form 1135. It is imperative for each supplier to know and understand the nature of quality assurance requirements. |
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| PARAGRAPH | CHANGE DESCRIPTION |
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| 5(a) | Is: Supplier Quality Assurance Requirements per ASQR-01 and COL-ASQR-PRO-0003, and all references therein apply whenever Form 1135, Part B, Clause 1A is specified on the Purchase Order. These documents defines the minimum supplier quality management system (QMS) requirements to qualify for Collins – Fairfield’s Approved Suppliers List (ASL) as an approved supplier.Was: Supplier Quality Assurance Requirements per UTAS ASQR-01 and all references therein apply whenever Form 1135, Part B, Clause 1A is specified on the Purchase Order. This document defines the minimum supplier quality management system (QMS) requirements to qualify for UPCO’s Approved Suppliers List (ASL) as an approved supplier. |
|  |  |
| 5(a)(1) | Is: If unable to comply with any ASQR-01 or COL-ASQR-PRO-0003 requirement, contact the Buyer for coordination with Supplier Quality Assurance of any potential considerations or countermeasures.Was: If unable to comply with any ASQR-01 requirement, contact the UPCO Buyer for coordination with Interiors Supplier Quality of any potential considerations or countermeasures. |
|  |  |
| 5(c) | Is: The Form 1135 quality assurance clauses establish…Was: The quality assurance clauses (UPCO Form 1135) establish… |
|  |  |
| 5.2(a) | Is: The applicable Quality Assurance Clauses Form 1135 must be read and understood by the supplier in order to evaluate…Was: The Quality Assurance Clauses of UPCO Form 1135 must be read and understood by the supplier in order to evaluate… |
|  |  |
| 5.2(a)(3) | Is: The Part B quality assurance clauses are listed on the purchase order for each part number.Was: The quality assurance clauses are listed on the purchase order for each part number. |
|  |  |
| 5.3(a) | Is: If any of Form 1135, Part B Quality Assurance Clause 12A, B, C or D are indicated on the purchase order,…Was: If any of Quality Assurance Clause 12A, B, C or D of UPCO Form 1135 are indicated on the purchase order,… |
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| PARAGRAPH | CHANGE DESCRIPTION |
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| 5.3(b) | Is: If Collins – Fairfield customer approved processors are required, suppliers may access customer approved lists using the following links:(1) Boeing: http://www.boeingsuppliers.com/d14426/index.html(2) Lockheed-Martin: https://sqm.lmaeronautics.com(3) Northrup Grumman: Was: If UPCO customer approved processors are required, suppliers may access the Boeing Approved Processors List at http://www.boeingsuppliers.com/d14426/index.html or the Lockheed-Martin Approved Processors List (QCS001 Listing) at https://sqm.lmaeronautics.com. |
|  |  |
| 5.4(d) | Is: … obtain the approval in writing and attach to the certification package with the shipment.Was: … obtain the approval in writing and attach to the certification package. |
|  |  |
| 6.2(a) | Is: This includes products delivered by Certified Suppliers in accordance with Collins – Fairfield Standard 8.1.67.Was: This includes products accepted by delegated representatives of Certified Suppliers in accordance with UPCO Standard 8.1.67. |
|  |  |
| 8(b) | Is: Collins – Fairfield Supplier Quality Assurance evaluates the nonconformance…Was: UPCO Quality Assurance evaluates the nonconformance… |
|  |  |
| 8(c) | Is: When containment and/or corrective action are required, a Containment (SC) and/or Supplier Corrective Action Request (SCAR) will be sent to the supplier.Was: When corrective action is required, a SCAR (Supplier Corrective Action Request) will be sent to the supplier requesting cause and corrective action. |
|  |  |
| 8(d)-(e) | Reformatted to be numbered list under 8(c). |
|  |  |
| 8(c)(1) | Is: The supplier’s Containment response is required within 48 hours of receipt of a Containment request.Was: An Immediate Correction (containment) response is required within 48 hours of receipt of a corrective action request. |
|  |  |
| 8(c)(2) | Is: SCAR responses are required within 15 calendar days of the receipt of a correction action request.Was: Full RRCA responses are required within 15 days, or with the returned parts, unless otherwise coordinated with UPCO's Supplier Quality Engineer. |
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| PARAGRAPH | CHANGE DESCRIPTION |
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| 9 | Is: Collins – Fairfield’s purchases material only from approved vendors who maintain a record of acceptable quality and on-time deliveries.Was: UPCO purchases material only from approved vendors who maintain a record of acceptable on-time deliveries. |
|  |  |
| 9.1(a) | Is: Collins – Fairfield monitors and reports On-Time Delivery (OTD) performance on a monthly basis for all approved suppliers using the Supplier Portal. Suppliers are responsible for their delivery performance and are expected to monitor their performance on a daily basis in the Supplier Portal.Was: Suppliers are responsible for their delivery performance and are expected to monitor their performance on a daily basis in the Aerovantix database. UPCO monitors and reports On-Time Delivery (OTD) performance on a monthly basis for all approved suppliers using Aerovantix. Suppliers will have until the 2nd business day of the month following the month that a line item was due to appeal any delivery data reported in Aerovantix. After that, the data will be “locked down” and adjustments will not be permitted. |
|  |  |
| 9.1(b) | Is: …so it is important for the supplier and the Buyer to agree on this set date on the Purchase Order (PO) at the time of issuance.Was: …so it is important for the supplier and the UPCO Buyer to agree on this set date on the Purchase Order (PO). |
|  |  |
| 9.1(c) | Added. Renumbered subsequent items. |
|  |  |
| 9.1(d) | Is: Please understand that if you call the DA with a “pushed out” date…Was: Please understand that if you call the UPCO Buyer with a “pushed out” date… |
|  |  |
| 9.1(g) | Is: OTD performance is factored into each Suppliers calculation of “Value”.Was: A report may be sent to the Supplier in the form of a Supplier Scorecard. Reference Section 10. Additionally, monthly OTD performance is factored into each Suppliers calculation of “Value” as a UPCO Supplier. |
|  |  |
| 9.2(a) | Is: Collins – Fairfield tracks the quality of received material on a monthly basis, including whether the proper certification package was received with the material.Was: UPCO's Supplier Quality Performance Rating System assists UPCO in maintaining records of material receipts and keeping track of the quality of the received material, and whether the proper certification package was received with the material. UPCO publishes an internal monthly Supplier Quality Performance Rating Report. A report may be sent to suppliers in the form of a Supplier Scorecard. Reference Section 10. |
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| PARAGRAPH | CHANGE DESCRIPTION |
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| 9.2(b) | Is: Quality performance is factored into each Suppliers calculation of “Value”.Was: Supplier Quality Performance is based either on defective parts per million (DPPM) or total number of escapes, depending on the projected number of parts shipped annually. Reference Section10.(c)(2). |
|  |  |
| 10(a) | Is: Supplier Scorecards will measure suppliers on 2 metrics, quality and delivery performance. Scorecards are available to suppliers anytime on the Supplier Portal using the Collins- Fairfield assigned supplier number. Suppliers may select the Scorecard ratings in 3, 6, or 12 month rolling periods.Was: Supplier Scorecards will measure suppliers on 2 metrics, quality and delivery performance. At a minimum, scorecards will be sent electronically to suppliers that have been selected to participate in the UTC ACE Supplier Gold Program. However, UPCO may select additional suppliers to receive scorecards at its discretion for any reason and at any time. |
|  |  |
| 10(b) | Added. Renumbered subsequent items. |
|  |  |
| 10(d) | Is: Supplier performance will be scored as defined below. Delivery (OTD) and quality (DPPM & Escapes) are individually color coded to indicate level of performance:Was: The performance metrics will be scored as defined below. Each metric (delivery and quality) and the overall composite rating will be individually color coded to indicate level of performance: |
|  |  |
| 10(e)(1) | Is: Delivery (OTD) performance is calculated as a percentage based on the total number of deliveries received on-time in full divided by the sum of the number of deliveries due.Was: Delivery (OTD) performance will be monitored monthly, and is calculated as a percentage based on the total number of deliveries received on-time in full divided by the sum of the number of deliveries due plus the number of line items in arrears for that reported month. Each month, as the current performance data is entered into the scorecard, there will be an update to the rolling six (6) month total for on-time delivery.Is: Green - ≥95%Yellow - ≥85 to <95%Red - <85%Was: Green – 95-100%Yellow – 85-94%Red - <85% |
|  | Removed NOTE. |

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| PARAGRAPH | CHANGE DESCRIPTION |
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| 10(e)(2) | Is: Quality performance has two components reported on scorecards; count of quality escapes and defective parts per million (DPPM).DPPM:Green - ≤ 500 DPPMYellow - >500 to ≤1500 DPPMRed - >1500 DPPMEscapes:Green - ≤ 5 escapesYellow - >5 to ≤15 escapesRed - >15 escapesWas: For high volume suppliers (>10,000 pc supplied annually), quality performance will be reported as defective parts per million (DPPM) for the previous six months and calculated as follows: (qty rejected / qty received) x 1,000,000.For low volume suppliers (<10,000 pc supplied annually), quality performance will be calculated monthly and reported as the total number of escapes for the previous six months.Green - 500 DPPM or ≤5 escapesYellow - 501 – 1500 DPPM or 6-15 escapesRed - >1500 DPPM or >15 escapesAdded NOTE. |
|  |  |
| 10(e)(3) | Removed. |
|  |  |
| 11 | Is: The Watch List is used by our Supply Chain department to share supplier performance data across all divisions of the Collins Mission Systems business unit. If a supplier’s performance has the potential to affect production at a Mission Systems facility or is affecting customer delivery, they can be put on the Watch List for close monitoring and reporting within our Supply Chain organization. Action items for a Performance Improvement Plan (PIP) will then be developed by the DA focal to help improve supplier performance and will be monitored to completion.Was: The Watch List is used by our Supply Chain department to share supplier performance data across all divisions of the UTAS Interiors business unit. If a supplier’s performance has the potential to affect production at a UTAS facility or is affecting customer delivery, they can be put on the Watch List for close monitoring and reporting within our Supply Chain organization. Action items for a Sustainable Improvement Plan (SIP) will then be developed by the Supply Chain focal to help improve supplier performance and will be monitored to completion. |
|  |  |

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# INTRODUCTION

## Purpose

###### The purpose of this handbook is to familiarize the supplier with the general requirements and expectations in regard to business transactions between Collins Aerospace Mission Systems Fairfield (hereafter referred to as “Collins – Fairfield”) and its suppliers. The require­ments defined in this standard are designed to ensure that the supplier will achieve continuous­ly improved quality, increased productivity, lower costs and most importantly -- a **zero defect** product.

###### In pursuit of these goals, Collins – Fairfield emphasizes the following general practices:

Collins – Fairfield considers each supplier a critical part of our multi-disciplinary team approach to quality.

Collins – Fairfield is committed to building a partnership with each supplier.

Collins – Fairfield relies on excellent performance from each supplier.

Collins – Fairfield depends on total commitment to quality from each supplier.

###### Collins – Fairfield is committed to design, manufacture, test, and sell reliable, high quality products to support our custom­er's requirements. To achieve our goals, our suppliers must have the same dedication to quality and continuous improvement.

## Scope

###### This handbook details the minimum requirements for suppli­ers who intend to maintain a business relationship with Collins – Fairfield. The document is applicable to all suppliers provid­ing raw mater­ials, components, subassemblies and/or processing to Collins – Fairfield.

###### This document is designed to:

Enhance "two-way" communication

Assist suppliers in understanding and complying with Collins – Fairfield requirements.

Reduce nonconformance, whether hardware, processing and/or documentation related.

**READ, BECOME FAMILIAR WITH, AND USE THIS HANDBOOK.**

# COMMUNICATION

###### Each supplier shall observe the following restrictions when communicating with Collins – Fairfield:

The Collins - Fairfield Buyer or Delivery Assurance Specialist (hereafter referred to as “Buyer” and “DA” respectively) are the primary points of contact for supplier communications, except as noted herein.

NOTE: For issues dealing with the Purchase Order upon issue, contact the Buyer. For issues dealing with the Purchase order after issuance regarding quantity, delivery or quality, contact the DA.

The Supplier should not accept any changes to Purchase Order requirements unless
authorized in writing by the Buyer or DA.

NOTE: The Buyer's name, phone number and email address are on the Purchase Order.

## Collins Aerospace Supplier Websites

(a) For RTX and/or Collins Aerospace supplier documents, open the Collins website [www.utcaerospacesystems.com](http://www.utcaerospacesystems.com), then:

Hover over ”**WHO WE ARE**”, then hover over ”**Doing Business With Us**” in the fly-out window and click on “**Supplier Resources**” in the second fly-out window.

Scroll down toward the bottom of the web page for links to current RTX documents, including:

RTX Supplier Code of Conduct

RTX Standard Terms and Conditions

Various RTX Policies and Practices required of Suppliers (Human Trafficking, Business Gifts, Conflict Materials, REACh, UPPAP Toolbox, etc.)

Collins Supplier Quality Requirements Documents (ASQRs & UTCQRs)

###### For Collins - Fairfield supplier documents, open the Collins website [www.utcaerospacesystems.com](http://www.utcaerospacesystems.com), then:

Hover over ”**WHO WE ARE**”, then hover over ”**Doing Business With Us**” in the fly-out window and click on “**Supplier Documents & Disclosures**” in the second fly-out window.

Scroll down toward the bottom of the web page and click on “**Interiors**”.

Scroll down and click “**PROPULSION**” for current Collins – Fairfield documents, including:

Supplier Request for Waiver Form 1928

Collins - Fairfield Part Marking Standard 4.2.1-1

Collins - Fairfield Supplier Handbook Standard 7.4.1

Collins - Fairfield Quality Clauses Form 1135

Collins - Fairfield (Interiors\_UPCO\_UTC) Terms & Conditions Addendum

Collins Supplier Quality Requirements COL-ASQR-PRO-0003

Collins – Fairfield ASRQ-01 Forms Management Standard 8.1.159

# PURCHASE ORDER PACKAGE

###### All terms, conditions and PO requirements (technical and non-technical) are established by the purchase order package documents. Requirements are contained in the following references:

Collins – Fairfield drawings and specifications.

RTX Standard Terms and Conditions of Purchase, the Interiors\_UPCO\_UTC Addendum, and the U.S. Government Provisions and Clauses for Orders under U.S. Government Contracts for fixed price purchase orders.

Specific Quality Assurance Clauses, Form 1135.

###### Suppliers must comply with the exact quality clauses called out on each purchase order, which are the specific requirements that apply to that order.

 NOTE: All quality clauses contained in Form 1135 Part A are applicable on ALL purchase
 orders with inspection requirements!

Order of precedence for purchasing documentation:

•Purchase Order

•Terms & Conditions

•Drawing

•Collins or Customer Specifications

•Industry Specifications

Unless otherwise specified in the Purchase Order Package, all supplied material and/or product shall be identified in accordance with Collins – Fairfield Standard 4.2.1-1, Identification Marking.

PO notes (Ensure that you read additional order notes as they may change periodically).

###### All Purchase Order requirements reflect contractual commitments of Collins – Fairfield to its customers.

###### SHIP TO/ BILL TO Addresses:

Verify the **Ship To** address: Universal Propulsion Co., Inc. 3530 Branscombe Road, Fairfield, CA 94533.

Verify the **Bill To** address: Goodrich Corp., FSS- Propulsion, fss.remitintprop@utas.utc.com

###### Contract Rating:

This is the government priority rating assigned to a Collins – Fairfield contract as defined by the Defense Priorities and Allocations System (DPAS) under 15 CFR Part 700.

“DX” rated P.O.s are first priority

“DO” rated P.O.s are second priority

Any other designation (or lack thereof) on P.O.s are third priority

###### If a DX rated job can be completed in time to meet the delivery date without rearranging shop priorities, then a DX rated job can be worked behind a DO rated job.

## Drawings and Specifications

All design, material, and nondestructive test requirements, acceptance criteria, component specifications, and source controls are identified on the drawings and in the purchase order package.

# SUPPLIER RESPONSIBILITIES

(a) Suppliers **must** meet the following performance criteria as a minimum:

Evaluate the scope of work and requirements at the request for quote (RFQ) stage.

 NOTE: When providing a quote using existing stock from a prior order, the supplier MUST review the current requirements against the old stock, as requirements do change at Collins – Fairfield. Prior accepted stock does NOT guarantee future acceptance. A waiver may be requested in these instances, but will have to be evaluated on a case-by-case basis by Collins – Fairfield.

Read and understand all requirements contained in the procurement package and contact the Buyer for clarification or to request required drawings or specifications.

Propose any exception to requirements and obtain written Collins – Fairfield approval of exceptions **prior** to accepting the work.

 NOTE: Verbal agreements are not binding. Do not acknowledge (accept) the purchase order if the specified requirements conflict with agreed upon exceptions. Instead, contact the Buyer to request a PO revision.

Participate in Technical Review telecons as requested.

Comply fully with all requirements when work is accepted.

Provide status on orders as requested and deliver high quality hardware on schedule.

As requirements may change per the Collins – Fairfield customer or situations may arise in the production area, we may need to push out or pull in parts shipments and suppliers are expected to support this effort to the best of their ability.

“Quality at the Source”- Fully comply with Clause 9 of Form 1135. This clause means **all** delivered parts will be compliant to the requirements of the PO package. We are not your substitute for inspection.

Fully understand and comply with the following:

• Supplier Quality Assurance Requirements (ASQR-01 and COL-ASQR-PRO-0003)

• Quality assurance clauses (Collins – Fairfield Form 1135)

• Engineering Documents listed in documents, drawings or P/O

• Technical requirements of drawings, etc.

• In accordance with International Trade regulations, non-US persons are not authorized to review technical data or perform work on highly sensitive EAR or ITAR controlled products without the prior written approval from the Collins – Fairfield International Trade Compliance office.

Work with Collins – Fairfield Supply Chain Management to implement Continuous Improvement into your facility.

In accordance with 22 C.F.R. Chapter 1, Subchapter M, Part 122, Suppliers must be registered with DDTC if they manufacture or furnish goods in support of a defense article. Defense articles are goods controlled by the ITAR.  Commercial off-the-shelf products are exempt from registration.  Commercial off the shelf are goods that are available to the general public. Registration instructions are identified in the ITAR. The DDTC website is <http://www.pmddtc.state.gov/>. Suppliers must provide proof of registration each year.

###### Suppliers are encouraged to make any recommendations which could reduce costs and/or improve our products. Collins – Fairfield places high value on its supplier’s expertise and ingenuity.

###### Suppliers will immediately notify Collins – Fairfield in writing, of changes to their Quality System, management or ownership. Changes requiring notification include but are not limited to:

Change in location of facilities, processes or manufacturing equipment. Notification must be prior to relocation and with adequate time for hardware, system, and process re-qualification.

Change in ownership, name changes, or change in senior company management.

###### Change in quality leadership, system or controlled processes certification status, including suspensions or disapprovals.

###### **Supplier Portal:** Suppliers are expected to actively use the Supplier Portal found at suppliers.utc.com to confirm current purchase orders, access shipping authorization and submit invoicing. For more information on the Supplier Portal contact your DA.

# QUALITY ASSURANCE

Quality requirements are developed to provide the necessary controls and types of data or records to support the acceptability of products supplied. The Collins – Fairfield mechanism for flowing down quality requirements to suppliers is imposition of RTX Aerospace Supplier Quality System Requirements ASQR-01, Collins Supplier Quality Requirements COL-ASQR-PRO-0003, and Quality Assurance Clauses Form 1135. It is imperative for each supplier to know and understand these quality assurance requirements.

1. Supplier Quality Assurance Requirements per ASQR-01 and COL-ASQR-PRO-0003, and all references therein apply whenever Form 1135, Part B, Clause 1A is specified on the Purchase Order. These documents define the minimum supplier quality management system (QMS) requirements to qualify for Collins – Fairfield’s Approved Suppliers List (ASL) as an approved supplier.

If unable to comply with any ASQR-01 or COL-ASQR-PRO-0003 requirement, contact the Buyer for coordination with Supplier Quality Assurance of any potential considerations or countermeasures.

###### Part specific quality requirements are requirements **in addition** to those contained in Collins – Fairfield drawings.

###### The Form 1135 quality assurance clauses establish specific quality requirements for each part and are referenced on purchase orders.

 NOTE: The quality clauses can change for the same part from purchase order to purchase order. Thorough review of the requirements should always be done when shipping overage material.

###### Any deviation from the quality assurance requirements of Form 1135 and/or the purchase order may affect acceptability of hardware, and will affect the supplier rating and the supplier's potential for future purchase orders with Collins – Fairfield.

## Quality Assurance Clauses (Form 1135)

###### The applicable Quality Assurance Clauses Form 1135 must be read and understood by the supplier in order to evaluate the scope and cost of quality requirements. Collins – Fairfield quality requirements are provided in the purchase order package as follows:

It should be noted that the Form 1135 contains both a Part A and a Part B. As such, Part A must be adhered to with the same attention to detail as Part B.

Form 1135 details the requirements indicating applicable controls and the types of data or records that may be necessary to support the acceptability of the supplier’s product.

The Part B quality assurance clauses are listed on the purchase order for each part number. These clauses are dictated in part by specific contractual requirements in effect at the time the order is placed. Therefore, a set of clauses for one part may not be the same for every order.

###### The requirements defined for each product apply only as specified in the individual purchase orders at time of placement.

## Collins – Fairfield and Customer Approved Processors

###### If any of Form 1135, Part B Quality Assurance Clauses 12A, B, C or D are indicated on the purchase order, suppliers can use only Customer or NADCAP approved processors to perform special processes. Collins – Fairfield does allow the use of Collins – Fairfield surveyed heat treating facilities that are not NADCAP approved for process requirements per Collins – Fairfield Standards 3.3.5-38 and 3.3.5-39, as well as for certain other processors / processes. These facilities are familiar with Collins – Fairfield requirements, allow small batch sizes and provide generally quick turnaround times. Contact the Buyer for more information.

###### If Collins – Fairfield customer approved processors are required, suppliers may access customer approved lists using the following links:

Boeing: <http://www.boeingsuppliers.com/d14426/index.html>

Lockheed-Martin: <https://sqm.lmaeronautics.com>

Northrup Grumman: <https://www.northropgrumman.com/Suppliers/Pages/Tools.aspx>

## Configuration Control

###### The purpose of supplier configuration control is to manage changes to Collins – Fairfield products and their related approved documentation to maintain product reliability, performance and quality. Configuration control begins at contract award, using the product configuration identification items prescribed by Collins – Fairfield, and continues throughout the life of the product.

###### Each supplier must know and understand the nature of the following configuration control supplier requirements:

Collins – Fairfield controls the configuration of its products and their components by revision letter as listed on the PO.

This policy also applies to all documents, specifications and standards (Collins – Fairfield, military, federal and industrial) and the latest revision is to be used unless listed in the purchase order package documents.

The engineering Document Listing, if provided as part of the purchase order package, establishes configuration baseline by revision letter of the applicable drawings, specifications and standards.

Any deviation from the configuration control requirements of the purchase order package may affect acceptability of hardware, and will affect the supplier's rating and the supplier's potential for future purchase orders with Collins – Fairfield.

###### Some aerospace contractors are very stringent in their flow down of specifications, revisions and accompanying paperwork and peruse each certification package for possible errors or omissions. We must make every effort to assure all documentation is accurate and complete. It is therefore important to adhere to the following requirements:

Supplier to mark on all accompanying certifications and all accompanying documents with the appropriate P/O number, part number and revision letter, N/C if applicable.

All specifications must have a revision letter noted, N/C if applicable.

All specifications must match the drawing notes verbatim. Specifications that supersede the specification on the drawing will not be acceptable unless noted on purchase order or authorized by an approved deviation (waiver) request, Form 1928.

###### As noted on all Collins – Fairfield Purchase Orders, if the required specification is superseded by another specification, notify your Buyer at the Request for Quote stage. We may be able to allow the use of the superseding specification, depending on our customer. If an exception is made by Collins – Fairfield, obtain the approval in writing and attach to the certification package with the shipment.

###### If the obsolete process is no longer available, then we must put the burden on our customer for direction. It is not acceptable to process at the current specification and certify to the old specification. You must meet all the requirements of the required process noted on drawing.

###### We strongly advise you develop a procedure or checklist that will capture these errors before material is shipped. Also, if the obsolete specifications are no longer available it will force our customers to consider revising their requirements. On the other hand, if we continue to "work around" this problem, we will always have waste. If we work together we can resolve this recurring problem.

# RECEIVING INSPECTION

Upon receipt of hardware, the following activities will be performed by Collins – Fairfield quality assurance personnel:

## Certification/Data Evaluation

Evaluation of all paperwork for adequacy and completeness.

### Corrected Paperwork / Certifications

###### The receipt of incorrect or erroneous certifications from suppliers is cause for rejection and will be documented on a Collins – Fairfield Quality Notification (QN). **Such rejection of certifications will affect the supplier’s quality performance rating and supplier corrective action (SCAR) may be requested.**

###### When an error is discovered in the certification package once it has been sent to Collins – Fairfield and a correction is required, all corrections will state the before and the corrected condition and be dated. Corrections required by the supplier’s processor(s), will require the correction to be done by the processor and a new certification to be issued meeting the above conditions.

### Certification Package After Rework

Most parts undergoing a rework process should have an additional statement on the General Certificate of Conformance stating exactly what work was performed. If the part was replaced instead of reworked, the certification package should clearly state this. Any processing required due to rework (brush alodine as an example), must have an accompanying certification and should also be listed on the Certificate of Conformance. Collins – Fairfield will ship the original paperwork back with the parts for rework. This paperwork along with a new Clause 9 Certificate of Conformance should be returned with the parts after rework or replacement.

NOTE: Deliveries of parts without required cert packages can result in the parts being returned to the supplier at their cost, along with a request for corrective action.

## Product Inspection

Physical inspection of the incoming shipment per the following guidelines:

###### Products source-inspected at the supplier's facility will be examined for quantity and shipping damage. This includes products delivered by Certified Suppliers in accordance with Collins – Fairfield Standard 8.1.67.

###### All other products will be inspected for compliance with applicable purchase order package documents.

## Disposition of Nonconforming Material

###### Nonconforming products will be dispositioned by Collins – Fairfield Quality as follows:

Return to Supplier: Products are returned to the supplier and are expected to be replaced with ones that conform to all the requirements as stated in the procurement package (the supplier may rework the product if it is determined that through reprocessing it will become totally conforming). The supplier should note on the Certificate of Conformance if the part was reworked or replaced as this will determine Collins – Fairfield’s sampling plan.

NOTE: When return authorization (i.e., RMA, etc.) is required by the supplier, typically Collins – Fairfield will request authorization via e-mail request. If, after two (2) days the supplier has not provided return authorization, Collins – Fairfield will proceed to return the product without that authorization in accordance with Quality Clause Form 1135 Part A, Clause [E].

Rework at Collins – Fairfield: If in the judgment of Collins – Fairfield, the product can be made conforming through reprocessing, and it is to Collins – Fairfield 's advantage to perform the rework, the product will be reworked at Collins – Fairfield using Collins – Fairfield planning and resources. There may be a cost impact to the supplier with this disposition. Any cost impact will be negotiated by the Buyer.

Use As Is: If in the judgment of Collins – Fairfield it may be to Collins – Fairfield’s advantage to use the product in spite of the nonconforming characteristic, the condition is referred to the Material Review Board (MRB) for evaluation of the impact and consideration of using the item as it is. Any cost impact will be negotiated by the Buyer.

###### All submissions to the MRB require statements of root cause and corrective action. Supplier root cause and corrective action is requested by Collins – Fairfield Quality on the applicable waiver submission form 1928. Decisions to use nonconforming products may need to be approved by Collins – Fairfield’s customers. Products submitted to the MRB are not normally returned to the supplier unless the MRB determines that it would not be in Collins – Fairfield’s interest to use the nonconforming products, or the supplier needs to examine the product to determine the cause of, and corrective action for, the nonconforming conditions.

# STATISTICAL PROCESS CONTROL

###### Suppliers are required to manage process variation in accordance with ASQR-01 whenever Form 1135, Part B, Clause 1A is imposed by the Purchase Order. ASQR-01 invokes AS9103 and UTCQR-09.1, which define the requirements for Collins – Fairfield and supplier defined key characteristics. These requirements are applicable to all Clause 1A products/processes irrespective of any other specified process control requirements, such as Clause 13C.

###### Whenever Form 1135, Clause 13C, Statistical Process Control (SPC), is imposed by the Purchase Order, suppliers are required to comply with the following requirements, as a minimum:

 NOTE: Collins – Fairfield’s requirements call for SPC data on critical manufacturing processes and characteristics. Suppliers will apply SPC methods to provide statistical control of the process and to reduce the variability of the process output, and ultimately improve product quality and reduce cost. Suppliers should strive for continuous improvement on all dominant characteristics.

Provide training in SPC methods to employees involved with recording and charting SPC data.

Provide gage repeatability and reproducibility (R & R) studies on all measuring instruments used to collect SPC data. The GM Long method is preferred. The R & R must be 30 percent or less. For all gages listed on charts submitted to Collins – Fairfield, a gage R & R study must be on file at Collins – Fairfield, or accompany the charts.

Collect and chart SPC data as parts are being produced (real time), using appropriate SPC charts and techniques. Variable data is required, however, with prior approval, attribute data may be acceptable for some limited applications. X-Bar and R charts are the preferred chart for variable data. A Cpk of 1.33 or greater is required on all critical characteristics. In most cases, critical characteristics will be jointly agreed upon by Collins – Fairfield and the supplier, however, Collins – Fairfield reserves the right to determine critical characteristics independently.

Submit SPC charts for all critical characteristics with each shipment of hardware.

Provide a corrective action plan to improve any process that is not in statistical control. This plan is required before additional orders will be placed.

###### Collins – Fairfield is committed to working with each supplier to develop statistical methods for improving performance in order to meet our goal of providing high quality product to support our customer's requirements.

# Corrective Action Requirements

A corrective action would be initiated and performed as follows:

###### Collins – Fairfield discovers a nonconformance or the supplier has recurring poor performance for quality and/or delivery.

###### Collins – Fairfield Supplier Quality Assurance evaluates the nonconformance and notifies the supplier of nonconforming material received, requesting corrective action when required.

###### When containment and/or corrective action are required, a Containment (SC) and/or Supplier Corrective Action Request (SCAR) will be sent to the supplier.

The supplier’s Containment response is required within 48 hours of receipt of a Containment request.

SCAR responses are required within 15 calendar days of the receipt of a corrective action request.

###### Collins – Fairfield requires supplier response to **all** SCARs submitted for processing from our Supplier Base.

# Supplier performance Rating System

Collins – Fairfield’s policy is to work with its suppliers to establish a partnership, with the goal of procuring quality parts on schedule and with the appropriate certifications. To this end, Collins – Fairfield monitors supplier quality and delivery performance at regular intervals and audits, evaluates, rates and approves suppliers. Collins – Fairfield purchases material only from approved vendors who maintain a record of acceptable quality and on-time deliveries.

## Delivery Performance

###### Collins – Fairfield monitors and reports On-Time Delivery (OTD) performanceon a monthly basis for all approved suppliers using the Supplier Portal. Suppliers are responsible for their delivery performance and are expected to monitor their performance on a daily basis in the Supplier Portal.

###### The Due Date is the date tracked for monthly OTD performance, so it is important for the supplier and the Buyer to agree on this set date on the Purchase Order (PO) at the time of issuance. This date is the date when Collins – Fairfield expects parts to be on its Receiving Dock, not the date the supplier ships out parts from their facility. If you drive your system by your ship date, verify that the Due Date on the Purchase Order includes shipping time. This is especially important for long distance truck shipments that can be over 5 days.

###### An Advanced Shipping Notification (ASN), available through the Supplier Portal, is necessary for inbound shipments. If you are not using the Supplier Portal for shipments, on time deliveries might be delayed while processing the shipment. Deliveries without ASN could negatively affect your monthly OTD performance score

###### The acceptable delivery window for parts to be considered on-time will be receipt in-full of parts or services no more than five (5) calendar days early to zero (0) days late to the PO due date. Exceptions for acts of God (i.e., earthquake destroys building, lightning strike burns building down, etc.), or other situations beyond supplier control will be taken under consideration.

###### Please understand that if you call the DA with a “pushed out” date due to your production schedule slippage, this does not mean that the PO Promise date automatically gets reset. You may need to negotiate with the Buyer for the date to be changed.

###### Per our Terms & Conditions, shipments that are more than five (5) calendar days ***early*** to the due date may be returned at your cost if prior arrangements were not made with or requested by the Buyer. Early delivery negatively affects your monthly OTD performance score.

###### Partial shipments are not counted as on-time unless the Buyer agrees to the change in delivery quantity and updates the purchase order delivery line. Further, any line items that are undelivered in the month that they are due (line items in arrears) will be carried forward in successive months performance scoring until the line item is delivered.

###### OTD performance is factored into each Suppliers calculation of “Value”.

## Quality Performance

###### Collins – Fairfield tracks the quality of received material on a monthly basis, including whether the proper certification package was received with the material.

###### Quality performance is factored into each Suppliers calculation of “Value”.

# SCORECARDS

###### Supplier Scorecards will measure suppliers on 2 metrics, quality and delivery performance. Scorecards are available to suppliers anytime on the Supplier Portal using the Collins- Fairfield assigned supplier number. Suppliers may select the Scorecard ratings in 3, 6, or 12 month rolling periods.

###### Supplier Scorecards are only available through the Supplier Portal.

###### Suppliers may appeal the data contained on their scorecard with objective evidence supporting why they think their quality/delivery score should be changed. Appeals regarding delivery performance are to be submitted to Collins – Fairfield Purchasing and appeals for quality performance are to be submitted to Supplier Quality.

###### Supplier performance will be scored as defined below. Delivery (OTD) and quality (DPPM & Escapes) are individually color coded to indicate level of performance:

**Green (Performing):** successful level of performance.

**Yellow (Progressing):** cautionary level of performance.

**Red (Underperforming):**  unacceptable level of performance.

###### The following defines each metric and color score.

Delivery Performance: Delivery (OTD) performance is calculated as a percentage based on the total number of deliveries received on-time in full divided by the sum of the number of deliveries due.

•Green - ≥ 95%

•Yellow - ≥ 85 to < 95%

•Red - <85%

Quality Performance: Quality performance has two components reported on scorecards; count of quality escapes and defective parts per million (DPPM).

DPPM:

•Green - ≤ 500 DPPM

•Yellow - > 500 to ≤ 1500 DPPM

•Red - >1500 DPPM

Escapes:

•Green - ≤ 5 escapes

•Yellow - > 5 to ≤ 15 escapes

•Red - > 15 escapes

NOTE: Corrective Action may be requested for undesirable performance in the red or yellow. If a request for formal corrective action is issued, the supplier is required to provide Relentless Root Cause Analysis (RRCA) for the underlying systemic performance issues.

# WATCH LIST

The Watch List is used by our Supply Chain department to share supplier performance data across all divisions of the Collins Mission Systems business unit. If a supplier’s performance has the potential to affect production at a Mission Systems facility or is affecting customer delivery, they can be put on the Watch List for close monitoring and reporting within our Supply Chain organization. Action items for a Performance Improvement Plan (PIP) will then be developed by the DA focal to help improve supplier performance and will be monitored to completion.

# CONTINUOUS IMPROVEMENT PROGRAM

The entire Collins – Fairfield Supply Chain is focused on expanding the knowledge of Lean Manufacturing and Continuous Improvement (CI) with our suppliers. This can be done by identifying problems or opportunities for improvement and working with Collins – Fairfield to hold CI events at your facility or ours. CI events can include 5S training and implementation, Process Mapping a problem area or function (administrative or production) to make improvements in a 1 or 2 day event or a full Kaizen (4-5 day) for process improvement. Some other tools that we can use are time studies, visual controls, developing standard work, percent load charts to distribute work and calculating product cycle time against the customer need (Takt Time). Contact our Supply Chain group for discussion on how to set up training and events.

# REACH

###### REACH (the **R**egistration, **E**valuation, **A**uthorization and Restriction of **Ch**emical substances) is a European Community Regulation on chemicals and their safe use (EC 1907/2006). It became effective on June 1, 2007.

###### The stated aim of REACH is to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.

###### REACH requires:

registration of all chemical substances manufactured, imported into and/or used in the European Union;

evaluation of the safety of these substances and their use;

declaration of information regarding these substances and their safe use; and

registration and authorization for use of certain chemicals: Substances of Very High Concern (SVHCs).

###### More complete information on REACH is available at:

<http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm>