GENERAL QUALITY ASSURANCE REQUIREMENTS

These requirements shall be communicated to ALL appropriate personnel within the Seller's organization, upon receipt of the Purchase Order.

1. Purpose

This document establishes requirements applicable to items ordered under the Request for quote or Purchase Order of which this document is a part. It contains General Requirements for quality assurance that are applicable, unless expressly excluded in the Purchase Order. Any Supplemental Quality Assurance Requirements (SQARs) specified on the Purchase Order shall also apply and if in conflict, shall supersede these requirements. Any of other conflict of requirements shall be resolved in writing through the GD-OTS Buyer.

2. Definitions

- The term **"Purchase Order"** refers to the Purchase Order, Sub-Contract, or other written agreement between the Buyer and the Seller (Supplier), in which this document is incorporated by reference.
- The term **"Buyer"** refers to the GD-OTS Niceville Procurement Agent issuing the Purchase Order.
- The term **"Seller"** refers to the legal entity that is the contracting party with the Buyer with respect to the Purchase Order. The Seller is the supplier to the Buyer.

3. Requirements for the Systematic Control of Quality

A. **Systematic Assurance of Conformance to Requirements:** The Seller shall establish a system of internal quality controls sufficient to assure that all items, materials, and services submitted to the Buyer conform to contract and Purchase Order requirements, whether manufactured or processed by the Seller, or procured from subcontractors or sub-tier suppliers. The Seller shall perform any inspections and/or tests necessary to substantiate product conformance to drawing, specification, or Purchase Order requirements. GD-OTS encourages its suppliers to become compliant with the requirements of ISO-9001(current revision) and to utilize those guidelines as the basis for their internal Quality Management System.

B. **Records:** The Seller shall maintain adequate records of all required certificates, inspections and tests, including such records or certifications provided to the Seller by its suppliers, for at least 7 years after final payment, unless otherwise specified, and shall provide or make available for review all such documentation.

C. **Drawing and Specification Control:** The Seller's system shall assure that only correct, current drawings and specifications as detailed in the contract and/or Purchase Order are used for fabrication, processing, and inspection and testing.

For military and other standards and specifications, the latest revision at the time of purchase order shall be used unless otherwise directed by the purchase order, drawing, or Buyer.

D. **Measuring and Test Equipment:** The Seller shall provide and maintain any measuring and test equipment necessary to assure that items and materials conform to requirements. To assure continued accuracy, such equipment shall be regularly checked for accuracy, and

precision equipment shall be calibrated at established intervals against certified standards traceable to the National Institute of Standards and Technology (NIST). GD-OTS encourages its suppliers to utilize the guidelines of ISO 10012 (current revision) as a model for maintaining inspection equipment and tools.

E. **Control of Nonconforming Material:** The Seller shall establish and maintain an effective and positive system for identifying, segregating, and controlling material found not to conform to requirements. An initial report to the Buyer of any material considered for MRB action is required within 2 business days of rejection. The Seller is advised that the authority to make Material Review Board (MRB) dispositions for assemblies, sub-assemblies, or components that comprise items listed on the Purchase Order is not granted. The Seller does not have the authority to perform any repairs or make substitutions. The Seller does, however, have the authority to scrap product that doesn't use or contain buyer supplied material. Any decisions to scrap any items made from Buyer supplied material must have the written consent of the Buyer. Rework to drawing requirements is permitted unless otherwise noted. The Seller may perform "Rework to Print", only after the Buyer has been notified that such "Rework to Print" needs to be performed and only if a documented procedure is in place that has been approved by the Buyer. Repair may not be accomplished without prior specific written approval of the repair from the Buyer.

(See paragraph 3.6 for handling of requests for deviations or waivers of requirements for proposed Repair or Use As Is dispositions.)

"Rework to Print" and "Repair" are defined as follows:

- **Rework to Print:** The reprocessing of nonconforming items, in the same manner as originally performed, to bring them completely into conformance with drawings, specifications, and/or Purchase Order requirements.
- **Repair:** The subjection of nonconforming material to an approved process designed to reduce but not completely eliminate the nonconformance. The purpose of repair is to bring nonconforming material into an acceptable condition. Repair is distinguished from rework in that the item after repair still does not completely conform to the applicable drawings, specifications, or contract requirements. Only the GD-OTS Buyer can approve any repair activity.

F. **Request for Changes / Deviations / Waivers / Variances:** The Seller shall not incorporate any change, deviation, or waiver which affects the Buyer's, Seller's, or Government's specifications or drawings prior to receipt of written authorization from the Buyer. This will also include any Acceptance Test Procedure or process specification changes or other requirements imposed for the acceptance of the item as described in the Purchase Order.

Additionally, the Seller is not authorized to process any items "at their risk" by incorporating the proposed change into deliverable items prior to:

- Submitting to the Buyer a Request for Change form (PAL 126), (supplier may use form DD1694 Request for Variance),
- Informing the Buyer in writing that the Seller intends to proceed with the change described "at their risk" prior to receiving the Buyer's full acceptance of the change,
- Receiving in writing from the Buyer permission to proceed "at their risk".

Unrelated changes / deviations / waivers shall not be submitted on the same Request for Change form. Each change must be submitted separately to the Buyer.

Each Request for Change from the Seller shall be accompanied by supporting evidence to justify and adequately describe the change / deviation / waiver.

G. **Rounding, and the Reporting of Inspection Data:** Unless otherwise specified, the Seller shall, during the course of inspection of items under the Purchase Order, utilize the standard practice of ASTM E29 (latest revision) with respect to rounding of digits. The accuracy of acceptance is a ratio of 10:1 greater than the tolerance of the feature being inspected. It shall be this last digit that is employed to determine the rounding of the other significant digits. In the case of MAX callout for a feature, rounding shall not be utilized and the absolute method shall be employed.

Additionally, the Seller shall report all inspection data, whether in their format or that of GD-OTS, to the same number of decimal places as shown on the drawing or within the specification.

H. **Use of Controlled of Shelf Life Materials:** The Seller shall have and maintain an effective system for controlling items that have limited acceptability due to shelf life constraints. The system must include a method for identifying the age of such items and provide for the rotation of stock (FIFO) as well as provisions for any special storage and handling conditions required by the manufacturer of the controlled shelf life item. The Seller shall not under any circumstances use or incorporate into any item materials that have lapsed beyond the shelf life expiration date.

I. **Tooling and Tool Proofing:** Tooling required for items produced under the Purchase Order are subject to acceptance by the Buyer. The Seller shall notify the Buyer when tooling is ready for inspection. Acceptance will be contingent upon a quantity of resultant dimensional samples inspected under surveillance of the Buyer's delegated representative. In the case of multiple cavity tooling, the resultant samples must be from each cavity. Samples used for dimensional verification shall be identified with the tool number (and cavity number if applicable) used to produce them.

The Seller shall notify the Buyer prior to any rework, refurbishment, or replacement of any portion of the tooling used to produce items on the Purchase Order. Upon notification, the Buyer shall advise the Seller if there is a need for an updated (delta) First Article Data Package, or to perform a new mold, die, or tooling analysis.

J. **Formation and Identification of Lot or Batches:** The product shall be assembled into identifiable lots, sub-lots, or batches. Each lot or batch shall consist of units or product of a single type, grade, class, size, and composition, manufactured under essentially the same conditions and at essentially the same time (MIL-STD-1916) unless stated otherwise in the PO, drawing, or QAD (Quality Assurance Document).

Numbers assigned shall be at the Supplier's option unless otherwise specified on the Purchase Order, but must be unique and non-repeating. Materials/items shall be packed in final shipping containers such that only one lot of material/items is in each container, and the containers shall be marked with the lot number of their contents. The Supplier shall also comply with any additional marking requirements dictated on the Purchase Order.

K. **Calibration System:** The Supplier shall maintain a calibration system using the guidelines of ISO-10012 (latest version) or equivalent. Reports shall identify NIST traceable standards and show actual values measured. Upon request the Supplier shall provide a certified calibration report for each instrument utilized in the acceptance/rejection of parts.

L. **Inspection Equipment (Supplier Furnished):** The Supplier shall provide all acceptance inspection equipment necessary to assure conformance of items to the requirements of the Purchase Order (except for any equipment provided by the Buyer or U.S. Government). All such equipment shall be subject to review by the Buyer (and possibly the Government) and shall be available for use at the time of First Article submission, or on-site Source Inspections. The Supplier shall maintain the acceptance inspection equipment within a controlled calibration system that requires established intervals for calibration against certified standards traceable to the National Institute of Standards and Technology (NIST). The accuracy of acceptance equipment shall be of a ratio of at least 10 to 1 greater than the tolerance of the characteristic or feature to be measured unless directed by the PO.

Any special inspection equipment designed and procured must be validated prior to use. This is typically completed by performing a modified Gage Repeatability & Reproducibility Study (GR&R) or some other validation plan that meets the usage.

M. **Control of 3rd Party Independent Inspection/Testing:** The Supplier shall use only accredited laboratories with a scope of accreditation allowing the performance of such testing / inspection. Prior to the performance of any testing (or inspection) to be performed by an outside laboratory the Supplier shall submit to the Buyer the name of the laboratory, the laboratory's certificate of accreditation, and the laboratory's scope of accreditation for approval. Accredited Certification Bodies recognized by GD-OTS are, but may not be limited to, A2LA (American Association of Laboratory Accreditation) and NADCAP (National Aerospace and Defense Contractors Accreditation Program). Use of a laboratory not accredited by either A2LA or NADCAP shall require approval of the Buyer prior to use.

Copies of the test / inspection report shall be provided to the Buyer, test / inspection reports shall include the specification (Drawing with Revision for items receiving dimensional inspection) that was applied, the individual requirements, actual measured results, and a Pass/Fail conclusion. The report must be signed by the testing/inspection facility. If the required NDT is for radiography, an adequate method of identifying and cross-referencing each x-ray film exposure shall be provided in report form. When parts are serialized, the serial numbers must appear on the report (and film if for x-ray) with the control number. NDT records shall be submitted with each shipment to the Buyer and shall include x-ray film when required by the Purchase Order.

4. Prohibited Practices

A. **Unauthorized Repairs:** The Seller may not repair parts damaged or found to be faulty during fabrication by means of welding, brazing, soldering, adhesives, or other means of adding material without the written consent of the GD-OTS Buyer.

Defects in castings or forgings shall not be repaired by any method unless authorized in writing by the GD-OTS Buyer.

B. **Changes in Approved Systems, Processes, Materials, or Procedures:** The Seller shall not change any process to include manufacturing methods or equipment, inspection methods or equipment, material, or procedure without prior written consent of GD-OTS. This specifically includes the Quality Management System. As to any product which has been subjected to Buyer or Government specified qualification procedures qualifying the Seller's product or to permit the Seller to become a qualified source for the product, the Seller shall not change product design, composition, configuration (including form, fit, function, or interchangeability), materials, fabrication processes, Seller's subcontractors, facility of manufacture, or outside processing sources without prior notification and subsequent written approval by the Buyer. All requests for change shall be submitted in writing.

The Seller shall flow down this requirement to subcontractors as applicable.

C. **Improper Resubmittal:** Items rejected by GD-OTS and subsequently resubmitted to the Buyer shall be clearly and properly identified as resubmitted. The Seller's shipping

documents shall state that the items are replacements or reworked items and shall also reference, by number, the Buyer's rejection document.

D. **Unauthorized Subcontracting:** The Seller shall not subcontract work, or processing (including that required by drawing or specification), or procure materials to be supplied to the Buyer (other than raw materials or catalog items), or release technical information included with the Request for Quotation or Purchase Order, to other subcontractors or sub-tier suppliers without specific written approval of the GD-OTS Buyer. (GD-OTS may have Customer requirements to control special process sources.)

E. **Unauthorized Facility Change:** The Seller shall not relocate any production, manufacturing, and/or processing facilities during performance of the Purchase Order without prior notification of such relocation to the GD-OTS Buyer, and affording the Buyer an opportunity to examine such facilities for compliance with Quality Assurance requirements, including any necessary approvals.

F. **Counterfeit Parts**: Purchased parts must be obtained by the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM), or through an OCM/OEM authorized distributor chain. "Counterfeit Work" means Work that is or contains items misrepresented as having been designed and/or produced under an approved system or other acceptable method. Supplier must immediately notify GD-OTS with the pertinent facts, if the supplier becomes aware or suspects that it has furnished Counterfeit Work. When requested by GD-OTS, the supplier shall provide OCM/OEM documentation that authenticates traceability of the affected items to the applicable OCM/OEM.

G. **Contacting the Customer**: The Seller shall not under any circumstances contact the customer of GD-OTS. GD-OTS is the point of contact for all verbal and written correspondence to our customer.

5. Responsibility for Conformance

Neither surveillance inspection and/or tests performed by the Buyer, or their representative, at either the Seller's or Buyer's facility, or the Seller's compliance with all applicable Quality Assurance Requirements shall relieve the Seller of the responsibility to furnish items that fully conform to the provisions of the Purchase Order in its entirety.

Product found to be nonconforming after source inspection or source surveillance does not relieve the Supplier's responsibility of their product. Product will have to be replaced or reworked as appropriate.

6. Drop Shipments of CFM

Knowingly utilizing defective product received as Customer Furnished Material (CFM) that has been drop shipped for additional preparation or assembly is prohibited. It is the supplier's responsibility to ensure that the product they receive as CFM is not visibly damaged, regardless of the accompanying approved PAL 128.

7. Documentation

The Buyer may refuse to accept items delivered under the Purchase Order if the Seller fails to submit the certification documentation, test data, inspection documentation, or reports specified in the Purchase Order. Documentation includes source inspection records when such source inspection is performed.

8. Lot Sampling

The Buyer reserves the right to use statistically valid sampling plans, including Zero Defect plans, for the acceptance or rejection of items, and to return items rejected by such means to the Seller for correction or replacement. Final acceptance shall be at GD-OTS, or if drop shipped, at the final destination.

9. Corrective Action Requests

When the Buyer determines that an issue exists, the Seller shall provide a formal response to any Supplier Corrective Action Request (SCAR) issued by the Buyer within the following timeframe.

A. **Initial response:** The Seller shall provide to the Buyer an initial response within 48 hours (2 business days if the 48 hours timeframe falls during a weekend or holiday). Extensions to the initial response due date may be granted at the discretion of the Buyer, but shall not exceed an additional 48 hours. The Supplier Point of Contact (POC) shall provide an initial response which shall include at a minimum:

- Acknowledgement that the SCAR has been received and understood.
- A simple statement of the condition without placing blame or attempting to solve the issue.
- A short term containment effort to prevent the condition from getting to the next step or the customer. This should include the name of the person responsible (POC) and the date of implementation.
- An initial data gathering plan – this plan may not be fully realized at this stage of the process, but may be used as a starting point which may be modified and updated as the

process develops. Again, this should include the name of the person responsible (POC) and the date of initiation and projected dates of additional events.

B. **Interim response(s):** As the Seller generates updates to either the containment action or to the initial data gathering plan they shall be supplied to the Buyer.

C. **Final response:** The Seller shall provide a final response to the Buyer within 30 calendar days of initial receipt of the SCAR. Extensions to the final response due date may be granted at the discretion of the Buyer, but only in the event that the need for extension is justified and is evidenced by a plan of action with dates extending beyond the original final response due date. The final response shall include at a minimum:

- The completed fully executed data gathering plan with analysis/interpretation of data.
- A determination of the root cause for the condition.
- A determination of actions needed to prevent recurrence of the condition.
- A corrective action implementation plan including the name of the person responsible and the date of implementation.
- A plan for future monitoring of the implemented actions to determine effectiveness.
- All objective evidence of actions taken to support the root cause and corrective actions implemented.
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A SCAR may not be closed until all actions have been implemented. Failure by the Seller to adhere to the response requirements shall reflect on the Seller's supplier rating and their ability to quote future business.

When corrective action is required for Government Source inspected items, the Seller shall coordinate such actions with the Government Quality Assurance Representative assigned to their facility.

10. Workmanship

Products delivered to GD-OTS are representative of the supplier's quality of work and shall be free of sharp edges, burrs, dents, folds, dirt, and oil.

A. **Surface Finish, Plated, & Surfaces:** Machined, plated, and painted surfaces shall be smooth and uniform. Free from blisters, pits with depth exceeding surface finish specifications, and other defects visible without magnification. Paint and plating shall be uniform in color. Scratches shall not expose base material.

B. **Forgings & Castings:** Forging and castings shall be free of slivers, laps, cracks, checks, seams, cold shunts, inclusions, scale, burning, and lamination.

C. **Welding:** All welds are to be free of slag, spatter, inclusions, and porosity. Weld beads are to be uniform and consistent.

D. **Threaded Features:** Screws, nuts, bolts, and threaded holes shall show no evidence of cross threading, mutilation, or detrimental burrs.

E. **Cleaning:** Machined parts and assemblies shall be cleaned free of dirt, oil, machining residues, smudges, metal chips, mold release agents, finger prints, or any other contaminant that detracts from the appearance of the item. Care should be taken in process to avoid staining and absorption of contaminant such as cutting fluid into porous material. Lubricants containing silicone should be avoided as silicone is nearly impossible to remove.

GD-OTS components are frequently assembled into items containing explosive. Chemical residues can cause a hazardous reaction.

F. **Item Identification:** When required item identification shall be clearly legible without magnification using a color contrasting in color to the surface. Do not metal stamp, engrave, or otherwise alter surface in excess of surface finish requirements unless explicitly stated in applicable purchase order or drawing. Do not use graphite pencils to identify metal parts (corrosion).

11. Packaging for Shipment

The Seller shall package all items for shipment or transport to GD-OTS, or other destinations as may be designated by the Buyer, in accordance with good commercial practices or as otherwise specified, assuring that the items are sufficiently protected so as to preclude damage such as abrasion, scratching, and denting due to contact between the items themselves and/or external damage in the course of normal commercial transport.

12. Right of Access

The Buyer, Buyer's Customer, and/or the Government shall have the right of access to the Seller's facilities for the purpose of inspection or verification of materials, processes, procedures, tooling, and equipment during performance of the contract or Purchase Order.

13. Contract Change Approval

The GD-OTS Procurement department has sole authority to invoke contract changes, such as engineering changes. No other GD-OTS representative, whether in the act of technical supervision, administration, or any other functional group is authorized to make any commitment to the Seller, to perform or terminate any work, or to incur obligation. Project Engineers, Technical Supervisors, Quality Engineers, and any other groups within GD-OTS (or as an agent thereof), are not authorized to make or otherwise direct changes that in any way affect the contractual relationship of the Seller and Buyer.

14. Flow Down of Requirements

The Seller's Purchase Orders must flow down all applicable Quality Assurance Requirements of GD-OTS' Purchase Order/Subcontract including, but not limited to, DFAR clauses, material certification, traceability of raw material during processing and delivery, documentation and control of processes, record retention, and a requirement for the appropriate inspection/quality system.

The Seller's system shall assure the flow down of all applicable quality and technical requirements that are part of the Purchase Order, and shall verify the subcontractor's capability to produce items and methods for assuring compliance to requirements. The Seller's subcontractors shall be required to flow down and verify requirements of supplies and services to their suppliers.

15. Cybersecurity

The Supplier shall have a cybersecurity program in place.

16. Quality Management System Awareness Program

The supplier is responsible for ensuring that employees are aware of the following per AS9100:

- their contribution to product or service conformity;
- their contribution to product safety;
- the importance of ethical behavior.