**Q0H COUPONS/CROSS SECTIONS FIVE YEAR RETENTION**
The supplier shall maintain all coupons/cross sections associated with this purchase order for a minimum of 5 years after the purchase order is closed.

**Q0M PART AND DATAMARKED W/UNIQUESTRAL NUMBER**
The supplier shall permanently identify each part with a serial number. The supplier's control system shall ensure that each serial number is not duplicated. Inspection and test records shall also be identified by the serial number of each inspected or tested part.

**Q0W MANUFACTURER MARKING**
The supplier shall record the name, address and cage code of the manufacturer on the shipper. The smallest unit container shall show the Purchase Order number, quantity, part number and lot numbers, as applicable. Use of other manufacturers or distributors does not relieve the supplier of meeting all of this order.

**Q1B DATA REQUIRED WITH EACH SHIPMENT**
If a lot is split and a partial shipment is made, all required data shall accompany each shipment. An additional copy of the data (i.e. test data, certificates of conformance, etc.) must be included in the follow-on shipments. When samples or sample data are sent separately, they must reference the original purchase order number, line item, and date of shipment. If a partial shipment is made, annotate it on the shipper.

**Q1L C OF C FOR GROUP A,B,C,D, AND/OR E TESTS**
The supplier shall submit a Certificate of Conformance (C-of-C) indicating that Group A, B, C, D and/or E tests were performed, as required by the procurement document, per applicable Military specification(s). This C-of-C shall indicate the specific group(s), lot number(s), date code(s), and part number(s) that qualified the product.

**Q1Z SUPPLIER NONCONFORMANCE REQUIREMENT INSTRUCTIONS**
Submit the following to LMSSC: 1. Proposed changes to LMSSC-approved technical, supplier Con-figuration or supplier process requirements. 2. Material, parts or assemblies that don't meet Procurement Order requirements via Vendor Request for Information or Change (VRIC). A Subcontract or Purchase Order Change Notice will list each LMSSC-approved change and/or LMSSC Material Review Board action(s).

**Q3Z SUPPLIER "RED FLAG" TIMELY FAILURE REPORTING**
Report Acceptance, Qualification and/or Reliability Test failures of deliverable hardware/software to LMSSC'S Procurement Representative via a verifiable method within 24 hours of failure ("Red Flag Report"). The test configuration shall not be disturbed until the failure is verified or until directed by LMSSC. Written notification, satisfying the LMSSC Program requirement provided detailed format, must be submitted within 72 hours of the Test failure. Interim Reports may be required at intervals not to exceed 30 days. Upon Failure resolution, a Final Failure Report, satisfying the LMSSC Program requirement provided format, shall also be submitted. Failures determined to be caused, within the 72 hour window above, by test equipment, operator error etc. with no damage or degradation the deliverable item do not require such written reports. Copies of the Vendor's Failure Report(s) shall be kept at the Vendor for review and/or submitted to LMSSC with the deliverable item(s).

**Q6A GOVERNMENT CONFORMANCE VERIFICATION REQUIREMENTS**
Mandatory Government Conformance Verification action is required at your plant for the parts manufactured for this contract. Upon receipt of this contract, immediately contact your local Defense Contract Management Agency (DCMA) Quality Assurance Representative for compliance. See code QAQC13 for detailed instructions.

**Q6Z LOT DATE CODE FOUR YEARS**
Supplier shall, for each part identity, provide all parts with a lot-date-code no more than four (4) years prior to the date of the Purchase Order to LMSSC.

**Q7Z LOT DATE CODE TEN YEARS**
Supplier shall, for each part identity, provide all parts with a lot-date-code no more than ten (10) years prior to the date of the Purchase Order to LMSSC.

**Q14 RETAIN TOOLING**
Tooling to be retained until called for.
Q19A RADIOGRAPHIC SUBMITTAL-ELECTRONIC COMPONENTS
X-ray film of each article defined in this contract, an analysis of radiographic inspection performed, and acceptance test report including actual test values, shall be submitted to Lockheed Martin. Individual article traceability to film shall be maintained. Articles defined in this Purchase Agreement are subject to Lockheed Martin inspection at destination and will not be accepted by Lockheed Martin if the Contractor fails to ship x-rays with the article.

Q19B RADIOGRAPHIC SUBMITTAL – ELECTRONIC COMPONENTS
X-ray films for each article defined in this contract shall be submitted to Lockheed Martin Quality, Denver, CO, for acceptance approval. Articles shall not be shipped from the Contractors facility until notification of Lockheed Martin acceptance approval has been received. Individual article identification to film shall be maintained through shipment.

Q26 FBM FIRST ARTICLE INSPECTION
First Article Inspection (FAI) is to be performed in accordance with FBM FAI Enclosure C. The Supplier shall notify the Authorized Requester identified in Enclosure A five (5) working days prior to performing FAI.

Q28 FBM PRODUCTION INSPECTION
FBM Production Inspection is to be performed and documentation maintained in accordance with Enclosure C production criteria

Q28A SUPPLIER QUALITY PROGRAM DOCUMENT M-64-119
Quality Assurance Program inspection shall be conducted by the Supplier at his facilities, or where designated in this Purchase Agreement. Inspection/test of the articles defined in this Purchase Agreement shall be performed by the Supplier and shall be under the cognizance of Lockheed Martin Quality. The inspection/test shall be performed in accordance with a Quality Assurance Program that meets the requirements of Lockheed Martin Document M-64-119, incorporated herein by reference. The Configuration, Manufacturing and Processing requirements section of the program shall be submitted to the Lockheed Martin Quality Representative for review and approval ten (10) days prior to the start of fabrication of deliverable hardware. The final acceptance and test requirements section of the program shall be submitted to the Lockheed Martin Quality Representative for review and approval at least thirty (30) days prior to the start of acceptance inspection/test.

Q28B SUPPLIER'S ACCEPTANCE PLAN - DOCUMENT M-64-119
Lockheed Martin source inspection shall be conducted at the Supplier's facilities, or where designated in this Purchase Agreement. Inspection/test of the articles defined in this Purchase Agreement shall be performed by the Supplier and shall be subject to witness by Lockheed Martin. The inspection/test shall be performed in accordance with an Acceptance Plan written by the Supplier and approved by Lockheed Martin. The Acceptance Plan shall be written to fulfill the requirements of Sections 6, 7, and 8 of Lockheed Martin Document M-64-119, "Supplier Quality Assurance Program Requirements." The Supplier's Acceptance Plan shall be submitted to the cognizant Lockheed Martin Quality Representative for approval not later than thirty (30) days prior to the beginning of acceptance inspection/test.

Q32 PART QUALIFICATION TESTS
Part Qualification Tests shall be conducted in accordance with the applicable device specification. Data derived from the qualification tests shall be submitted to LMSSC for review/approval.

Q32A NONDELIVERABLE SOFTWARE REQUIREMENTS
The Contractor shall plan, develop, and implement those practices and procedures that are necessary to assure compliance with the following requirements for hardware designed, tested, supported, or operated by software. Contractor shall provide controls to ensure that different software program versions are accurately identified and documented, that no unauthorized modifications are made, that all approved modifications are properly incorporated, and that software used for testing is the proper version. Contractor shall ensure that support software and computer hardware to be used to develop and test software or hardware under the procurement agreement are acceptable to Lockheed Martin. Contractor shall establish a baseline of procured or developed software by performing validation tests that include demonstration of pass/fail criteria. Lockheed Martin reserves the right to observe all validation tests and shall be notified at least three (3) days in advance of the start of testing.

Q37 GOVERNMENT SOURCE INSPECTION AT DESTINATION
Government Source Inspection shall be notified to perform Receiving Inspection at destination.
**Q56 DIMENSIONAL INSPECTION 100%**
Seller shall perform 100% detailed/dimensional inspection, record the actual dimensional data for all drawing characteristics, and compliance with drawing notes for all parts. The recorded data, related material, and process certs (as applicable) shall be delivered with the parts for each lot shipped.

**Q57 FINAL INSPECTION 1 PART 100% FROM EACH LINE**
Seller shall inspect and Buyer will witness Seller's final inspection to determine Seller's capability to produce parts in compliance with applicable drawings and specifications. Inspection shall be 100% of one part randomly selected if all parts are produced on one machining process line setup, or if more than one machining process line setup is used, one part from each line shall be randomly selected and shall be 100% inspected to verify each process line. Data shall be recorded on Seller's form and shall be delivered with the parts. Seller shall provide Buyer with in-process data for review.

**QA1 LOCKHEED MARTIN ACCEPTANCE AT DESTINATION**
Articles ordered under this Contract are subject to final acceptance at the Lockheed Martin facility as set forth on the face of the Contract.

**QA4H HYDROGEN EMBRITTLEMENT SENSITIVE HARDWARE**
The Subcontract MUST only be placed with Arcata approved Manufacturers/Distributors. The Contractor and its Subcontractor shall submit with each shipment, certification of the origin of man-ufacture and procurement, applicable traceability information for articles delivered (e.g. date code/lot number), and part number. The certification shall be signed and dated by an authorized Representative of the Manufacturer/Distributor supplying the articles. Hydrogen Embrittlement Sensitive hardware supplied by distributors shall be obtained only from Arcata approved manufacturers and shall not be modified or reworked in any fashion by the distributor or his subcontractors unless specifically authorized by an Arcata customer drawing or specification. Articles defined in this Contract are subject to Arcata customer inspection at destination and will not be accepted by Arcata customer if the Manufacturer/Distributor fails to ship completed certification with the articles.

**QA5B ACCEPTANCE TEST PROCEDURES**
The Contractor shall prepare separate detailed test procedures, encompassing tests required for acceptance. Each item of hardware, or part thereof, which requires acceptance testing, shall be covered by an Acceptance Test Procedure. Acceptance Test Procedures require Arcata customer approval prior to the delivery of the first unit of hardware. Subsequent changes are subject to Arcata customer approval prior to incorporation. Where these tests are performed utilizing equipment controlled by computer software or firmware, the software or firmware associated with, or affecting, those tests require Arcata customer approval at the same time(s) as the remainder of the Acceptance Test Procedure.

**QA7 SPECIAL PROCESS APPROVAL**
Processor (Contractor and/or Subtier) shall have current required approval(s) in place at the time of hardware processing. Contractor shall verify approval prior to performing processing.
Approval: When Arcata’s Purchase Agreement requires special processing, the Contractor and/or Subtier Contractor shall accomplish such processing only after:
1. Special Processor Approval by an on-site survey by Arcata customer or
2. Arcata customer approval of the Contractor’s system to control his own Subtiers
   a. This approval is contingent upon the Contractors procedural requirement for an on-site survey to an adequate process specific questionnaire and
   b. A vendor rating system that identifies unacceptable sub-tier performance with criteria for corrective action and criteria and frequency for re-survey and
   c. A list of sub-tier processor approval(s) that contains approval and expiration dates.
The subcontractor performing special process work shall have a Quality System that complies, at a minimum, with the following paragraphs of AS9003 in their entirety: Paras. 4.1, 4.3, 4.6.4, 4.6.6, 4.9.4.10.1 thru 4.10.3, 4.11 thru 4.16, 4.18. Arcata customer approval of sub-tier special processing does not relieve the Contractor of the responsibility to ensure that work performed by Subtier Contractors is in accordance with specification requirements. Equivalency: If the Arcata Purchase Agreement requires processing in accordance with a Lockheed Martin internal specification (example: EPS, STP, 5-XXXX, 0- XXXXX, LAC specifications), the Special Process Approval may be for an equivalent Industry or Government specification. If the Arcata Purchase Agreement requires processing in accordance with a cancelled Military Specification or Standard, the Arcata determined Special Processor Approval may be for
the replacement Industry or Government specification. This special process approval does not authorize deviation to, or take priority over, the contractually imposed requirement. The Contractor and/or the Subtier Contractor must conform to the requirements of the contractually imposed requirement. The Contractor shall insert the substance of this clause, and clause QAQC08 (QC08), including this sentence, in all lower-tier purchase agreements for work performed under this contract.

QAQC01 (QC01) AQC01 MATERIAL IDENTIFICATION, DAMAGE AND COUNT
Each article delivered under this Purchase Order will require positive identification with the part numberordered. All purchased materials and services are subject to inspection for compliance to this purchase order and all applicable quality clauses. No material or process substitutions, quantity variations or splits from the purchase order may be made without prior written authorization from the Customer.

QAQC02 (QC02) (AQC02) QUALITY SYSTEM
When Specifying Compliance to AS9100 “The organization shall have a quality program that complies with International Organization for Standardization document SAE, AS9100 - Model for Quality Assurance in Design/Development, Production, Installation, and Servicing.” Third party certification / registration is not required. “If Customer has accepted Organization's AS 9100 registration and Organization subsequently changes registrars, loses its registration status, or is put on notice of losing its registration status, it shall notify Customer's procuring Component(s) within three days of receiving such notice from its registrar.” When specifying Compliance to ISO9000 “The organization shall have a quality program that complies with International Organization for Standardization document ISO9000 - Model for Quality Assurance in Design/Development, Production, Installation, and Servicing.” Third party certification / registration is not required. When Awarding a Contract to a ISO 9000 or AS 9100 Registered Organization “If Customer has accepted Organization's third party quality registration and Organization subsequently changes registrars, loses its registration status, or is put on notice of losing its registration status, it shall notify Customer's procuring Component(s) within three days of receiving such notice from its registrar.

QAQC03 (QC03) (AQC03) RIGHT OF ACCESS
Work under this purchase order/contract is subject to government or customer surveillance/inspection at organization’s plant or sub-tier supplier’s facility. The organization will be notified if a surveillance/inspection is to be conducted.

QAQC04 (QC04) (AQC04) FLOWDOWN REQUIREMENTS
This clause mandates that all applicable requirements that are invoked or applied to the customer’s purchasing document, including this clause, shall be flowed down to the organization's sub-tier suppliers.

QAQC05 (QC05) (AQC05) CERTIFICATE OF COMPLIANCE
Organization shall provide a certification with each shipment to attest that the parts, assemblies, subassemblies, or detail parts conform to the Order requirements. When applicable, the true manufacturers, lot, heat, batch, date code, and/or serial number must appear on the certification.

Certification must contain the following:
- Customer’s Order number
- Part number
- Name and address of manufacturing or processing location
- Manufacturer’s lot, heat, batch, date code, and/or serial number (if applicable)
- Quantity and unit of measurement (each, box, case, gallons, etc.)
- Be signed and dated by an official of the company

The applicable material test results, process certifications and inspection records shall be presented upon Customer’s request. Organization shall perform inspection, as necessary, to determine the acceptability of all articles under this Order. All articles submitted by Organization under this Order are subject to final inspection at Customer’s plant.

QAQC06 (QC06) AQC06 CERTIFICATE OF COMPLIANCE RAW MATERIALS
Organization will include with each shipment the raw material manufacturer’s test report (e.g., mill test report) that states that the lot of material furnished has been tested, inspected, and found to be in compliance with the applicable material specifications. The test report will list the specifications, including revision numbers or letters, to which the material has been tested and/or inspected and the identification of the material lot to which it applies. When the material specification requires quantitative limits for chemical, mechanical, or physical properties, the test report
will contain the actual test and/or inspection values obtained. For aluminum mill products (except castings), certifications for chemistry may indicate compliance within the allowed range. Certifications for physical properties will show actual values. When organization supplies converted material produced by a raw material manufacturer, the organization shall submit all pre and post conversion chemical / physical tests reports.

**QAQC07 (QC07) (AQC07) CERTIFICATE OF COMPLIANCE CALIBRATION**

The organization shall submit for each item calibrated, one reproducible record of actual calibration results, including applicable graphic and tabular data. Records shall be traceable to the individual item tested, by part number, serial number and customer’s order number for the item shipped. The organization’s calibration certificate shall include a unique calibration tracking number, tolerance range, and when applicable, environmental conditions for each parameter calibrated. The certificate shall also state the operating error per specification, the degree of correction of out of tolerance condition and remaining uncorrected out of tolerance condition, if applicable.

**QAQC08 (QC08) (AQC08) SPECIAL PROCESS CERTIFICATION**

Processor (Contractor and/or Subtier) shall have current required approval(s) in place at the time of hardware processing. Contractor shall verify approval prior to performing processing.  

Definition:  
Special Process – A method controlled by a contractually required specification where:  
1. A product undergoes a physical, chemical or metallurgical transformation or inspection. Conformance to the specification cannot be readily verified by normal inspection methods and,  
2. The quality of the product depends on use of specific equipment operated in a specific manner, under controlled conditions, by trained personnel with instructions, procedures or standards. Contractually required specifications include Lockheed Martin, Industry or Government specifications identified in the Lockheed Martin Purchase Agreement, subordinate drawings, statements of work, or other contractual documents. Certain special processes are required to comply with this contract. Special processes shall be performed only by sources that have been surveyed and approved by Lockheed Martin to perform those processes.

A special process certification shall be provided with each shipment of item(s) delivered on this contract. Special Process Certifications may be in supplier format and shall include the following:  
- Customer’s Order number  
- Part number(s)  
- Serial and/or lot numbers, of the hardware processed (if applicable,)  
- Material process specification & revision  
- A certification stating the special process was performed per the applicable drawing/specification requirements.  
- Processing Organization’s name and address  
- Each certification must be signed and dated by a company official of the Organization and/or Processor attesting to the acceptance of the processes performed to the required specification(s). The Organization shall insert the substance of this clause, including this sentence, in all lower-tier subcontracts for work performed under this contract.

**QAQC09 (QC09) (AQC09) CALIBRATION SYSTEM**

The organization shall have a documented calibration system that meets the requirements of ISO 10012, “Quality assurance requirements for measuring equipment”, or the “American National Standard Institute (ANSI)/National Conference of Standards Laboratories (NCSL) Z540-1, General Requirements for Calibration Laboratories and Measuring and Test Equipment.

**QAQC10 (QC10) (AQC10) CONFIGURATION MANAGEMENT SYSTEM**

Organization shall be responsible for controlling / tracking changes to parts and components manufactured to ensure that the end product meets specified design functional and physical characteristic requirements. This includes any part or component manufactured to Customers’ or vendors’ drawings, specifications, or special process procedures. With each shipment, Organization shall submit “configuration documents, which define the requirements, designs, build / production and verification for a configuration controlled item. This record shall be signed and dated by an official of the Organization’s Quality Assurance department, and in addition to the aforementioned required information, shall include the following minimum requirements:  
- Organization’s Contract / Purchase Order number including any change orders  
- Line item number  
- Part number  
- Serial number (traceability as applicable)  
- Lot number (traceability as applicable)
· Drawing number
· Revision level (baseline configuration)
· Revision level (as built)
· Engineering order(s) (if applicable)
· Process deviations and waivers (if applicable)

QAQC11 (QC11) (AQC11) CHANGE AUTHORITY
The Organization shall provide in writing advance notification to the Customer of any change(s) to tooling, facilities, materials or processes at the Organization or the Organizations sub-tier that could affect the Customers contracted product. This includes, but is not limited to, fabrication, assembly, handling, testing, facility location or introduction of a new sub-tier supplier.

QAQC12 (QC12) (AQC12) CRITICAL PROCESSES
The following shall apply to customer designated “critical processes” performed by the organization: The organization will notify the customer of proposed changes in process definition and, will obtain approval from the customer prior to implementing the change. Changes affecting processes, production equipment, tools and programs shall be documented. Procedures shall be available to control their implementation. The following shall apply to organization designated “critical processes” that have been sub contracted: “The supplier will notify the organization of proposed changes in process definition and, will obtain approval from the customer prior to implementing the change. Changes affecting processes, production equipment, tools and programs shall be documented. Procedures shall be available to control their implementation”

QAQC13 (QC13) (AQC13) GOVERNMENT SOURCE INSPECTION
All work on this Purchase Contract is subject to inspection and test by the Government at any time and any place. Government inspection is required on this order prior to shipment from Organization’s facility. Government inspections performed will be determined by the delegated Government inspection representative and may be conducted during processing, fabrication, or final inspection. Upon receipt of this Purchase Contract, promptly notify the Government representative who normally services your plant so that appropriate Government inspection planning can be accomplished. If your facility is not serviced by Government inspection and/or the area Government inspection representative or agency cannot be located, immediately notify Customer. NOTE: Do not proceed with fabrication/manufacturer processing until Government mandatory inspection points (GMIPs) are added to Organization's manufacturing planning. GMIPs shall not be bypassed unless authorized in writing by the Government inspection representative. Organization shall request and include the documents specified in the Government delegation, in the shipment. The Government’s request for source inspection shall specify the period and method for the advance notification and the Government representative to whom it shall be furnished. Request shall not require more then 2 workdays of advance notification of the Government representative is in residence in the Contractors plant, nor more then 7 workdays in other instances. Organization, without additional charge to the procurement document, shall provide all reasonably required facilities and assistance (applicable drawings, specifications, change orders, inspection and/or test equipment) for the US Government representative to perform their duties. Organization shall ensure that Government inspection acceptance is evident for every individual GMIP and that completion of Government inspection is evident on Organization's shipping document/packing list. Evidence may be the signature of Government inspection representative with printed name and office, or application of the representative's stamp. The Government shall accept or reject supplies as promptly as practical after delivery, unless otherwise provided in the contract. Government failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability on the Government, for nonconforming supplies. When manufacturing processing affected by GMIPs is subcontracted by Organization, the provisions of this Clause shall be included in the Organization's Purchase Order verbatim.

QAQC14 (QC14) (AQC14) CUSTOMER SOURCE INSPECTION (CSI)
Customer source inspection is required prior to shipment of articles from the Organization’s facility. Upon receipt of this Order and prior to commencing work, promptly notify the Customer’s Procurement Quality Assurance Representative (PQAR) assigned to the Organization’s facility so the appropriate inspection plan can be coordinated. In the event that a Procurement Quality Assurance Representative does not normally service the Organization’s facility, immediately notify the Customer Procurement representative to obtain a point of contact for the appropriate Procurement Quality Assurance Representative (PQAR) assignment. Source inspection shall be conducted by the Customer at the Organization’s facility or where designated in the Order. The Organization shall notify PQAR office a minimum of five (5) working days in advance of the time the articles or materials are ready for inspection or test. The Organization shall make available to the PQAR all applicable drawings, specifications, procedures, statements
of work, Customer’s Order, test software, and changes thereto, related inspection and/or test equipment, and such other information as may be required to satisfactorily perform the inspections and tests required under this Order.

**QAQC15 (QC15) (AQC15) FIRST ARTICLE INSPECTION**

Organization is required to perform 100 percent inspection and record the attributes for the first article of this Contract / Purchase Order, and shall be in accordance with AS9100 and AS9102. If the deliverable is an assembly, this inspection shall also include all of the piece parts that make up the assembly. The inspection records and data shall be per AS9102 and shall identify each characteristic and feature required by design data, the allowable tolerance limits, and the actual dimension measured as objective evidence that each characteristic and feature has been inspected and accepted by the Organization’s quality and inspection function. When testing is required, the parameters and results of the test shall be recorded in the same manner. The First Article Inspection Report must show evidence of acceptance by the Organization’s quality assurance representative. The First Article(s) shall be produced on production equipment and using processes which will be utilized on production runs. Additionally, the Organization shall perform additional First Article Inspection(s) per the requirements of AS9102 (i.e.: following every major tooling, every design change, and subsequent to any evident quality degradation for a specified part or article). Records of all first article activity will be documented as required in AS9102, treated as quality/acceptance records, and made available to Customer if requested.

**QAQC16 (QC16) (AQC16) NDI/NDT CERTIFICATION**

Organization will include with each shipment a certificate for the NDI/NDT performed. As a minimum, the certification shall contain the following information:
- Customer’s Purchase Order / Contract number
- Name and address of the Company performing NDI/NDT;
- Date of Inspection;
- Quantity of parts tested by part number;
- Specification or other requirement defining the NDI/NDT acceptance / rejection criteria;
- Inspector/name/stamp and NDI/NDT certification level;
- NDI/NDT specification including revision;
- Material or item identification (part number, heat lot number, Foundry Record (FR) number);
- Material or item traceability (serial number, lot number, batch number, lot/date code);
- Inspection results (accept/reject);
- Reference to previous NDI/NDT reports for repair/repair if applicable;
- Reference to attached recordings i.e., films or photographs if applicable; A record of the procedures or techniques used and actual results shall remain on file for at least five years after shipment to Customer and shall be furnished to Customer upon request. These records shall include all information required in the previous paragraph as well as acceptance / rejection criteria, and related test instrument data used in the NDI/NDT process.

**QAQC17 (QC17) (AQC17) 100% ATTRIBUTE CLAUSE**

“The organization shall submit (1) reproducible copy of all inspection documentation stamped by the responsible quality inspector showing 100% inspection for all attributes noted on the drawings, for all parts submitted under this Contract/Purchase Order.”

**QAQC18 (QC18) (AQC18) LIMITED OPERATING LIFE ITEMS**

Organization will collect and maintain records of operating time or cycles for all items designated as Limited Operating Life Items by Customer's drawings or specifications. Records will include the total elapsed time or cycle for each operation, cumulative time or cycles starting with the first functional test, and remaining time or cycles. A copy of this data will be included with each shipment traceable to the individual item by part number and serial number.

**QAQC19 (QC19) (AQC19) LIMITED LIFE AND AGE CONTROL ITEMS**

Products on this Order require submittal of date of manufacture when shelf life is based on date of manufacture, or date of shipment from the manufacturer when shelf life is based on date of shipment, as appropriate, based on specified method of shelf life determination. Upon shipment, shelf life remaining shall meet the minimum shelf life specified on the order. If no shelf is specified, 75 percent of the shelf life shall be remaining on products on this order. Certification must contain the following:
- Customer’s Order number
- Order part number
- Manufacturer’s name, lot, heat, batch, date code, and/or serial number (as applicable)
Special Provisions, Quality Assurance Clauses

- Date of manufacture
- Date of shipment from manufacturer (as specified on Order)
- Organization name, and Organization’s point of contact
- Date

**QAQC20 (QC20) (AQC20) PACKAGING REQUIREMENTS**
Organization’s Quality Control organization shall be responsible for ensuring that items provided under this Contract/Purchase Order are packaged in such a manner that the dimensional integrity is preserved, contamination and corrosion are prevented, and no physical damage occurs or, when specified, that packaging is in accordance with the drawing, appropriate ASTM, MIL, or other applicable customer specified requirement.

**QAQC21 (QC21) (AQC21) HANDLING AND LABELING**
The organization shall provide packaging that maintains the quality of the fabricated item and prevents damage, deterioration, substitution or loss in transit. The organization shall label the exterior of the package to ensure adequate identification of precautions needed to ensure the integrity of the product being shipped. The organization must specify the handling and shipping methods that ensure proper and on-time delivery without damage to the product. The organization shall ensure that special labeling requirements shall also be listed in the appropriate shipping documents and on each package.

**QAQC22 (QC22) (AQC22) SHIPPING DOCUMENTS**
Organization shall furnish Commercial Shipping Documents/Packing List, capable of being photographically reproducible through two additional reproductions, showing the following:
- P.O. Number
- Part Number(s)
- Description
- Qty ordered
- Qty shipped
- Lot/Date Code/serialization (as applicable)
- Any handling constraints or cautions such as, but not limited to:
  - Optics; open only in clean room environments.
  - ESD sensitive items, open only at approved ESD workstation.
  - Moisture sensitive components, open/store only in humidity controlled area.
  - Shock sensitive components (shock monitoring should be specified if required).

**QAQC23 (QC23) (AQC23) NONCONFORMANCE REPORTING**
Under this clause, Customer grants no MRB authority to the Organization or it’s sub-tier suppliers. (Repair is not allowed under this clause.)

**Definitions:**

**Nonconformance:** A condition of any article, material or service in which one or more characteristics do not conform to requirements specified in the contract, drawings, specifications, or other approved product description. Includes failures, discrepancies, defects, anomalies, and malfunctions. Rework: Used when an article can be made to conform to drawing requirements. Detailed instructions must be included or referenced.

**Repair:** Used when the nonconforming article, material or service can be corrected to a usable condition, although its condition will not be identical with drawing / specification requirements. “The organization shall ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities for dealing with nonconforming product shall be defined in a documented procedure. The organization’s documented procedure shall define the responsibility for review and authority for the disposition of nonconforming product and the process for approving personnel making these decisions. 'Data Requirements: Any non-conformance discovered by the organization, on products in their control, shall be documented by the organizations’ approved method of nonconformance reporting. This shall include a detailed description of the nonconformance; location (by drawing reference point, hardware reference point, clock location, etc.); and exact callout of the violation by drawing or specification requirement (including, sub-paragraph or illustration number). It shall also list what type of inspection revealed the discrepant condition, and what, if any, subsequent actions were taken prior to disclosure. Dimensional violations shall include “should be” and “is” dimensions, and tool(s) calibration traceability numbers. Nonconformance Preliminary Review: The preliminary review process shall be initiated with the identification and documentation of a nonconformance. A preliminary
review shall be the initial step performed by the organization to determine if the nonconformance needs to be reported to the customer (see below), and to determine if the nonconformance is minor and can be re-worked to a condition that completely conforms to the drawing or specification requirements. Note: preliminary review does not negate the requirement to identify, segregate, document, report and disposition non-conformances. Non-conformances shall be reported to the customer under the following conditions. When notification is required, notification shall be within 3 working days after the nonconformance is discovered.

The problem is detected during one of the following:

- Certification, acceptance, or qualification testing
- Other “significant” test as specified by the customer
- Turnaround, maintenance, overhaul, and repair of flight, ground test operation or shipping and receipt
- of hardware delivered to the customer including any test involving hardware previously accepted by the
- Customer and returned for repair, modification, etc.

And it is:

- Flight hardware
- Flight Hardware Spares
- Equipment that is representative of flight hardware (flight-like hardware), including prototype and
- qualification hardware
- Ground Support equipment (GSE) that is safety critical

**QAQC24 (QC24) (AQC24) GIDEP**
The contractor shall participate in the Government-Industry Data Exchange Program (GIDEP) in accordance with the requirements of the GIDEP S0300- BT-PRO-010 and S0300-BU-GYD-010, available from the GIDEP Operations Center, PO Box 8000, Corona, California 91718-8000. The contractor shall review all GIDEP ALERTS, GIDEP SAFE-ALERTS, GIDEP Problem Advisories, GIDEP Agency Action Notices, and NASA Advisories to determine if they affect the contractors products/services provided to NASA. For those that affect the program, the contractor shall take action to eliminate or mitigate any negative effect to an acceptable level. The contractor shall generate the appropriate failure experience data report(s) (GIDEP ALERT, GIDEP SAFE-ALERT, GIDEP Problem Advisory) whenever failed or nonconforming items, available to other buyers, are discovered during the course of the contract.

**QAQC25 (QC25) (AQC25) RECORD RETENTION**
Organization and Organization's Subcontractors shall maintain verifiable objective evidence of all inspections and test performed, results obtained and dispositions of non-conforming articles. These records shall be identified to associated articles, including heat and lot number of materials, unit or lot serialization and made available to Customer and/or Government Representatives upon request and shall be retained in a safe, accessible location for a period of ten (10) years after date of delivery as defined in the contract. Organization's records associated with the manufacture of serialized or lot controlled articles will provide for continued traceability of serial numbers or lot number identification through all phases of manufacture, commencing with the raw material and continuing through final acceptance of the end item. Records held for the required retention period (ten years) shall not be destroyed without Customer's written concurrence.

**QAQC26 (QC26) (AQC26) ELECTRICAL WIRE AND CABLE TEST REPORT**
Organization shall provide certification that each shipment of electrical wire or cable furnished under this contract conforms to the applicable specifications. For each lot or cable in each shipment, a certified test report or copy thereof shall be included with the packing sheet. The test report shall, at a minimum, include a record of the physical, chemical, or electrical (and in the case of RF cable, electronic) inspections and tests conducted to satisfy the acceptance requirements of applicable specifications, and shall include numerical results when applicable. For cable shipments, these requirements apply to both basic and finished cable. When the specification requires other inspection or test data to be reported, it shall be included in the test report. Reports shall provide the Organization or Supplier’s name, the specification number and revision date or change letter, and other data required by the specification, and must be identified to or correlated with the lot shipped.

**QAQC27 (QC27) (AQC27) EEE PARTS DATE OF MANUFACTURE**
All Electrical, Electronic or Electromechanical (EEE) parts procured from the organization or its suppliers shall have been manufactured within three (3) years from the delivery date for Plastic Encapsulated Microcircuits (PEMs) and five (5) years for all others. This shall include all subassemblies of the article being procured. Any deviation from this requirement shall be in the form of a written authorization from the procuring agency, and the authorization shall be included with each shipment.

**QAQC28 (QC28) (AQC28) EEE SINGLE LOT/DATA CODE**
Special Provisions, Quality Assurance Clauses

The full quantity of date code controlled Electrical, Electronic, and Electromechanical (EEE) parts, each part number, provided under this Purchase Order / Contract must have a single lot-date code. The organization will obtain the written approval of the customer’s authorized purchasing representative prior to shipping goods that do not meet this single lot / date code requirement. In the event that the customer’s purchasing representative provides said authorization to ship mixed lot / date codes, the organization shall provide a copy of the written authorization with the shipping document. When mixed lot / date codes are authorized, the shipping document shall list individual lot / date codes and quantity. Multiple lot / date codes shall not be co-mingled. In addition, the individual part containers shall be marked with the quantity and lot / date code.

**QAQC29 (QC29) (AQC29) ESD PROTECTION PROGRAM AND PACKAGING**

The organization shall document and implement an ESD Control Program in accordance with ANSI/ESD S20.20, ESD Association Standard for the Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices). Parts must be properly packaged and identified as required in ANSI/ESD-S20.20. All goods will be placed in conductive or static-dissipative packages, tubes, carriers, conductive bags, etc., for shipment. The packaging must be clearly labeled to indicate that it contains electrostatic sensitive goods. Electrical parts that may be used or shipped in conjunction with ESD sensitive parts shall be treated as ESD sensitive.

**QAQC30 (QC30) (AQC30) HIGHSTRENGTH FASTENERS**

Organization will include with each shipment a legible copy of the manufacturer's certification. The certification will include the following information:
(a) Name and address of the manufacturer.
(b) Part number and the ordering and procurement specification, including revision levels that controlled the manufacture of the goods.
(c) Manufacturer's production order/lot number.
(d) Raw material data:
   • Material specification.
   • Alloy class, type, or grade.
   • Raw material heat, lot, or melt number.
   • Name of raw material producer.
(e) Chemical analysis report.
(f) Mechanical test report as defined by the applicable specification (e.g. Tensile and/or single/double shear strength).
(g) Metallurgical examination report as defined by the applicable specification (e.g. microstructure and/or macrostructure).
(h) NDT test results: dye penetrant, and magnetic particle results, when required by applicable specification.

If Organization is not the manufacturer, Organization's name and Customer's purchase order/contract number will be referenced on the manufacturer's certification. Organization’s Quality Control organization shall be responsible for ensuring that items of this Order are packaged in such a manner that the dimensional integrity is preserved, contamination and corrosion are prevented, and no physical damage occurs to the threads during shipment. The preferred method, when size permits, will be to individually sleeve the threaded portion of the fastener. Any method used shall insure that threads remain undamaged during shipment. Bulk packaging of unprotected threads is prohibited. Fasteners made of plain carbon or low alloy steel shall be protected from corrosion. When plating is specified, it shall be compatible with the space environment (as appropriate). On steels harder than RC 33, plating shall be applied by a process that is not embrittling to the steel.

**QAQC31 (QC31) (AQC31) PRESSURE VESSEL**

With each shipment, Organization shall provide two copies of American Society of Mechanical Engineering (ASME) Code Reports showing conformance of the units to the requirements of the Pressure Vessel Code. When required, the hardware markings must be in accordance with the applicable drawing/specification. The pressures tested/certified to and the method used shall be indicated.

**QAQC32 (QC32) (AQC32) SOLVENT CONTAINERS**

All solvents must be supplied only in a new container that has not been used before to prevent contamination by residual material.

**QB2A RAW CASTINGS AND FORGINGS**
Two samples of all raw castings and forgings are required from new or reworked dies or molds and must be approved by Lockheed Martin prior to run of production parts. Unless Lockheed Martin source surveillance is a requirement of the Contract, the samples shall be forwarded to Lockheed Martin Receiving Inspection with the actual results of layout inspection, radiographs, and actual chemical and physical test results. When Lockheed Martin source surveillance is a requirement of the Contract, the layout and test data shall be evaluated at the Contractor's facility. In either case, first article approval by Lockheed Martin is required prior to the start of production. The Contractor is responsible for obtaining Lockheed Martin approval of any change in processes or tooling using the same approval instructions stated above.

QB2B SUPPLEMENTAL DATA REQUIREMENTS (CASTINGS/FORGINGS)
In addition to chemical/physical test reports stating the actual chemical and mechanical properties for each lot submitted, inspection/test data listed below shall be submitted for each lot of castings or forgings as required by specification or Contract. Certification for Magnetic Particle, Fluorescent Penetrant Inspection, Ultrasonic Inspection, Pressure Test, and Grain Flow shall be submitted with the order. Radiographic Inspection results including film for each casting shall be supplied. These reports shall be validated by an authorized representative of the Contractor's Quality Department, by either an inspection stamp or signature.

QB3A HEAT TREAT SAMPLES
Two (2) test bars shall be heat treated with parts and submitted with shipment (for each heat treat lot).

QB3B TENSILE TEST SAMPLES
Two (2) separately cast test bars, coupons, or appendages as defined by the applicable specification or drawing shall be submitted with each lot delivered.

QB4 TEST REPORTS - SUBMITTAL
Actual functional test reports referencing Contract number, Contractor's name and address and/or independent laboratories' name and address, part number, part name, serial number if applicable, date and run time if applicable, must accompany each shipment to be delivered. These reports shall be validated by an authorized Contractor's Representative, by either an inspection stamp or signature and title.

QB4F FAILURE ANALYSIS REPORT
The Contractor shall perform a failure analysis on item(s) returned under this Contract and shall provide to Lockheed Martin, as a minimum, the following information with the shipment or as directed by contract:

- Date of report;
- Contract number;
- Contractor's name and address;
- Part name, number, revision level, and serial/number;
- MARS number (if specified by Contract);
- Specific and contributory causes of failure;
- List of parts required to repair item(s);
- Corrective action taken to preclude recurrence and effectivity by date or serial number of corrective action;
- Signature and title of Contractor's Quality Representative approving the failure analysis report.

QB5 MATERIAL AND PROCESS CONFORMANCE
The Contractor shall submit with each shipment, a Certificate of Conformance, shall be dated and bear the signature and title of an authorized Contractor's Representative, stating that the materials furnished to Lockheed Martin are in conformance with applicable requirements of the Contract, drawings and specifications and that supporting documentation is on file and will be made available to Lockheed Martin or Government Representatives upon request. Certification shall include name of Contractor for materials being supplied, quantity shipped, and Contract number. An example of an acceptable statement of certification of conformance is as follows: "This is to certify that all items noted are in conformance with the Contract, drawings, specification and other applicable documentation that all process certifications, chemical and physical test reports, are on file at this facility and are available for review by Lockheed Martin."

QB5A LOCKHEED MARTIN FURNISHED MATERIAL CERTIFICATION
The Contractor shall submit with each shipment, a Certificate of Conformance, shall be dated and bear the signature and title of an authorized Contractor's Representative, stating that the hardware furnished to Lockheed Martin is in conformance with applicable requirements of the Contract, drawings, and specifications, and that Lockheed Martin
furnished material was used in the manufacture of the hardware. An example of an acceptable statement of Certificate of Conformance is as follows: "This is to certify that all items noted are in conformance with the Contract, drawings, specifications, and other applicable documentation. Material was furnished by Lockheed Martin and no substitutions have been made without Lockheed Martin authorization. "When Substitutions have been authorized, the certification will be modified to indicate the source, nature, and date of the authorization.

**QB6 NEUTRON RADIOGRAPHIC INSPECTION FOR COMPONENTS**
Components ordered require neutron radiographic inspection in accordance with LAC SPEC-3701. An original neutron radiograph must be submitted to LMSSC for review and approval at the time of hardware delivery.

**QB8 GEAR TEST TAPES (MACHINE GEARS)**
With each shipment of gears, the Contractor shall submit gear test tapes for each gear, identified to the gear to which they belong and that verify compliance to specification requirements.

**QB9 TEST SAMPLES**
Concurrent with the shipment of production articles, Contractor shall furnish test sample(s) of each batch sufficient to conduct tests in accordance with specification or contract requirements. Each test sample must be clearly and permanently marked with:

1. batch or lot number;
2. date manufactured;
3. specification or material control information number;
4. Contractor's designation;
5. contract number.

**QB11 CERTIFICATE OF COMPLIANCE FOR LEAD CONTENT**
Electronic, electrical, electro-mechanical and/or mechanical piece parts, and assemblies (including internal hardware) shall NOT have tin plating or finishes with <3% lead content. This requirement also applies to component leads, terminals, carriers, bodies, cages brackets, housings, mechanical items and fasteners (nuts, bolts, screws, rivets, washers, etc.). The Supplier shall provide a written Certificate of Compliance, with each shipment of product, which attests that the product, and each sub-tier supplier's product(s) contained therein, meet this requirement. The Supplier shall insert the substance of this clause, including this sentence, in all lower-tier subcontracts for work performed under this contract.

**QBN PRODUCT ASSURANCE SSP 30000 APPLIES**
Product Assurance Requirements Definition Document SSP 30000, Section 9, Rev. A applies.

**QBO PRODUCT ASSURANCE JSC 31000 APPLIES**
Space Station Projects Description And Requirement Document JSC 31000, Volume 4, Rev. D applies.

**QC1 AGE CONTROL OF RUBBER GOODS**
Rubber goods delivered under this Contract shall be identified with cure date or manufacture date, as applicable, and/or shelf life information in accordance with the applicable material specification. Age sensitive rubber goods shall be individually packaged and delivered within 6 months of the cure date or manufacture date.

**QC2 TIME AND TEMPERATURE SENSITIVE MATERIAL**
Time and temperature storage conditions must be attached to the packing sheet and accompany each shipment to be delivered hereunder. The outer most shipping box must be marked to indicate "Time and Temperature Sensitive Material", and "Temperature Storage Range in Degrees".

**QC3 PRINTED CIRCUIT BOARD (RAW MATERIAL)**
Copper clad laminate sheets shall be separated per each layer within a package/bag (not required for prepreg material). Each container (bag, package, box) shall be labeled with the following information: Specification Number, Revision Level, Type Designation, Manufacturers Name, Contract Number, Date of Manufacture, and Lot Number.

**QC4 ORDNANCE REQUIREMENTS**
Fifteen (15) days prior to shipment to the first article, a drawing or sketch and specification sufficient to inspect, assemble, checkout, test, and store this material must be forwarded to the Arcata Buyer with the following information:

- The identity and unit weight of explosive(s);
- Maximum sensitivity of the explosive(s) (Mechanical, electrical, and/or thermal);
- Contractor's drawing or part number, lot number, year of manufacture and serial number of each component, if applicable.
- Contractor's acceptance test procedures, shall include:
  A. Minimum current for "All Fire;"
  B. Maximum current for "No Fire;"
  C. Recommended checkout procedure;
  D. Environmental limitations.

**QC5 CONTAMINATION CONTROL**

Articles ordered under this Contract shall be cleaned by the Contractor as required by Arcata customer contamination control specifications. Cleaning and/or testing of the articles shall be performed in facilities with procedures and equipment approved by Arcata Customer. Each article shall be identified with a "Cleaning Status Certification and Identification Tag". The tag shall be attached in a prominent position not in contact with significant surfaces.

**QC7 SENSITIVE FLIGHT/GROUND EQUIPMENT SENSITIVE FLIGHT/GROUND EQUIPMENT, HANDLE WITH EXTREME CARE.**

**QC8 ELECTROSTATIC SENSITIVE DEVICES**

Devices delivered under this Contract are Electrostatic Sensitive. The Contractor shall assure that devices delivered are packaged to provide electrostatic protection and identified as ESD in accordance with applicable Procurement Specification.

**QCF GOVERNMENT SOURCE INSPECTION C OF C**

Hardware listed in this Purchase Order (PO) has Mandatory Government Source Inspection requirements, Classification of Characteristics (CC's). Seller must contact local Defense Contract Management Agency (DCMA) Quality Assurance Representative, prior to start of production, to coordinate with DCMA the mandatory inspections. All CC's inspection characteristics must be included in shop travelers before starting production and include a space for DCMA to stamp at each attribute. If a Navy Gage is used at your facility for the verification of a hardware feature, then the Gage(s) must be maintained in accordance with OD60758, Procedure- Receipt, Care and Shipment of Navy Special Interface Gages. See enclosure to this PO for the list of CC's. The enclosure, sent out as a part of this PO, is the governing document unless superseded by a Purchase Order Change Notice. If the CC listing is not an enclosure in this PO it must be obtained from DCMA. Note: Only those CC's attributes that are affected in a Rework/Repair/SLE PO shall require re-inspection and require a space in the shop traveler for DCMA stamp.

**QCG ENVIRONMENTAL TEST LIMITS**

Seller shall assure that weapons specifications (environmental test limits) are not exceeded. Review environmental test records prior to retest of new hardware and hardware returned for rework; if additional testing will exceed environmental specification limits notify LMSSC.

**QCV FACILITY ENGINEERING SOURCE INSPECTION**

LMSSC source inspection is required at the manufacturing plant. Contact LMSSC Facility Engineering at (321) 476-7382 between the hours of 0800 and 1600 EST for direction and scheduling of source actions as required.

**QD1 PRELIMINARY REVIEW AUTHORITY**

The supplier is delegated Preliminary Material Review authority (PMR) for hardware non-conformances. This authority is limited to dispositions of Rework to engineering requirements, return to previous operation for reprocessing, Scrap (unless material was supplied by Lockheed Martin), Repair to a Lockheed Martin approved standard repair instruction (SRI), and Return to Subtier Supplier. This authority does not extend to the use of a Material Review Board (MRB) for the purpose of changing engineering criteria, which can only be accomplished by drawing change.

**QD3 MATERIAL REVIEW AUTHORITY**

The supplier is delegated material review authority for all article characteristics contained in supplier drawings that are not specified requirements of the Lockheed Martin drawings or Purchase Agreement and do not have a direct
effect on such specified requirements. If the supplier is uncertain as to the effect on specified requirements, the concurrence of the Lockheed Martin Quality Representative shall be obtained. This authority does not extend to the use of Material Review Board (MRB) for the purpose of changing engineering criteria, which can only be accomplished by drawing change. This delegation is contingent on Lockheed Martin's approval of the supplier's capability to meet the intent of Mil-Std-1520 and is subject to review at any time by Lockheed Martin. Material Review records, reports, documentation and qualification of personnel will be made available to the Lockheed Martin Quality Representative upon request. This delegation of material review authority can be rescinded at any time by written notification from Lockheed Martin Quality.

**QD4 PRODUCT ASSURANCE D274855 APPLIES**

**QD4A QUALITY SYSTEM REQUIREMENTS (ISO 9001:2000)**
The Contractor's Quality System shall conform to the requirements of the elements described in ISO 9001:2000, Quality Systems-Model for Quality Assurance in Design, Development, Production, Installation, and Servicing. Third party registration by an accredited registrar will be accepted. Contractor declaring system compliance to ISO 9001:2000 with no formal accredited registrar will be reviewed. The Contractor's system will be subject to review and approval at all times by Lockheed Martin.

**QD4B QUALITY SYSTEM (ISO 9001:2000 With Exclusions)**
The Contractor's Quality System shall conform to the requirements of the elements described in ISO 9001:2000, Quality Systems-Model for Quality Assurance in Design, Development, Production, Installation, and Servicing; with exclusions to Section 7. Third party registration by an accredited registrar will be accepted. Contractor declaring system compliance to ISO 9001:2000 with no formal accredited registrar will be reviewed. The Contractor's system will be subject to review and approval at all times by Lockheed Martin.

**QD4C QUALITY SYSTEM (SAE AS9100 w/exclusions)**
The organization shall have a quality program that complies with International Organization for Standardization document SAE AS9100 Model for Quality Assurance in Design/Development, Production, Installation, and Servicing, with exclusions to Section 7. Third party certification / registration is not required. If Customer has accepted Organization's AS9100 registration and Organization subsequently changes registrars, loses its registration status, or is put on notice of losing its registration status, it shall notify Customer's procuring Component(s) within three days of receiving such notice from its registrar.

**QD5 HISTORICAL RECORD (AFTO FORM 2E)**
Articles defined in this Purchase Agreement require the issuance of a Component Historical Record. Form shall be completed in accordance with instructions on the reverse side of form.

**QD6 TECHNICAL INSTRUCTION COMPLIANCE (DD FORM 829-I)**
Articles defined in this Purchase Agreement require the issuance of a Technical Instruction Compliance Record. Form shall be completed in accordance with instructions on the reverse side of form.

**QD8 DD250-INSPECTION (PQA) OR INSPECTION / ACCEPTANCE**
Articles defined in this Purchase Agreement require the issuance of an Inspection DD Form 250 (PQA) or Inspection and Acceptance (Material Inspection and Receiving Report).

**QD9 PRE-CAP VISUAL INSPECTION PROCEDURE APPROVAL**
Seller shall obtain Buyer's review and approval of its Pre-Cap Visual Inspection Procedure prior to Pre-Cap visual inspection on items to be delivered under this order at least 30 days prior to the Pre-Cap visual inspection.

**QD11 VIBRATION TIME RECORD (VTR) FORM DEN 101201**
Articles defined in this Purchase Agreement are subject to maximum vibration time limitations. A Vibration Time Record (Form DEN 101201) shall be completed for each part in accordance with instructions on reverse side of form.

**QD12 SPECIAL CONSIDERATIONS ITEM DECAL (SCID)**
Articles defined in this Purchase Agreement require the application of a Special Considerations Item
Package Decal (Form DEN 500419) to the exterior of each item container upon completion of packaging of the item. Blocks on the periphery of the SCID package decal shall be stamped by Lockheed Martin Quality to indicate compliance with applicable special categories. Special Considerations Item Part Decal (Form DEN 500420) shall be applied near the nameplate of Part Number of each part defined in this Purchase Agreement. Decal shall be positioned so that it does not obscure any information. If there is a possibility that the part decal would contaminate the item, or if the item is too small, the decal will not be used. Articles defined in the Purchase Agreement, which are not Lockheed Martin Source inspected, will have the decals completed and applied at destination.

**QD13 MANNED SPACE FLIGHT REQUIREMENTS**
Articles ordered in this contract are for use in Manned Space Flight. Materials, manufacturing, and workmanship of highest quality standards are essential to astronaut safety. If you are able to supply the desired items with a quality which is higher than that of the items specified or proposed, you are requested to bring this fact to the immediate attention of the purchaser. This clause will be inserted in all subcontracts and purchase orders for such items down to the lowest tier.

**QD15 RADIOGRAPHIC APPROVAL**
Contractor shall submit an X-Ray Control Document to Lockheed Martin, identifying areas to be xrayed, image views, and orientation to allow precise film interpretation. When welding is a requirement, identify each weld by number, direction, and the number of views required per weld. Welding operations shall not be conducted by the Contractor until Lockheed Martin approval of document is obtained. The control document shall be listed by number and revision on a Documentation Accountability Sheet (DAS). The Contractor shall give written notification to the Lockheed Martin Quality Representative of any revisions or changes by entering such revisions on a DAS. X-ray films for each article defined in this Contract shall be submitted to Lockheed Martin Quality, for acceptance approval. Articles shall not be shipped from the Contractor's facility until notification of Lockheed Martin Quality Acceptance approval has been received.

**QD16 RADIOGRAPHIC SUBMITTAL**
Contractor shall submit an X-Ray Control Document to Lockheed Martin, identifying areas to be xrayed, image views, and orientation to allow precise film interpretation. When welding is a requirement, identify each weld by number, direction, and the number of views required per weld. Welding operations shall not be conducted by the Contractor until Lockheed Martin approval of document is obtained. The control document shall be listed by number and revision on a Documentation Accountability Sheet (DAS). The Contractor shall give written notification to the Lockheed Martin Quality Representative of any revisions or changes by entering such revisions on a DAS. Articles defined in this Purchase Agreement are subject to Lockheed Martin inspection at destination and will not be accepted by Lockheed Martin if the Contractor fails to ship x-ray with the article.

**QD26 ORDNANCE REQUIREMENTS**
Supplier shall submit Bureau of Explosive documentation as to material classification, material description, explosive classification, and shipping information. Shipping information necessary to properly package, mark, and label, in accordance with Department of Transportation Hazardous Materials Regulations shall be included. Articles defined in this Purchase Agreement are subject to Lockheed Martin inspection at destination and will not be accepted by Lockheed Martin if the contractor fails to ship the above data. B. Data Item Description (DID) Supplier shall submit completed DID Form DD1664, number DI-L-3311/L-117-l, required for obtaining hazardous classifications. Articles defined in this purchase agreement are subject to Lockheed Martin inspection at destination and will not be accepted by Lockheed Martin if the contractor fails to ship the above data.

**QD27 MATERIAL SAFETY AND SHIPPING DATA**
A. Material Safety Data Supplier shall submit a Material Safety Data Sheet (DEN 412610) or equivalent with the shipment. Articles defined in this Purchase Agreement are subject to Lockheed Martin inspection at destination and will not be accepted by Lockheed Martin if the contractor fails to ship the above data. B. Shipping Data Supplier shall submit the proper shipping classification, flash point, and information necessary to properly ship the articles in compliance with CFR Title 49. Articles defined in this Purchase Agreement are subject to Lockheed Martin inspection at destination and will not be accepted by Lockheed Martin if the contractor fails to ship the above data.

**QD36 CRITICAL CHARACTERISTIC INSPECTION REQUIREMENTS**
The contractor shall perform 100% inspection of critical characteristics identified in the Lockheed Martin engineering document. The contractor shall submit a certificate of compliance with each shipment attesting that all
critical characteristics have been verified, to meet the requirements of the engineering document(s). The certification shall contain as a minimum a listing of the critical characteristics verified, the name of contractor, part number, purchase order number, serial number(s) (when applicable) and quantity of parts shipped. Certification must be validated by an authorized representative of the contractor's Quality Department, by either an Inspection Stamp or signature and a date in which the inspection occurred.

**QDE QUALITY CONFORMANCE TEST**
Quality Conformance Test (QCI) shall be conducted on each test lot according to the applicable specification. QCI test data shall be recorded and shall be delivered with the parts.

**QDJ LOT DATE CODE TRACEABILITY**
Items delivered under this order shall be traceable to the individual wafer, assembly qualification, and/or test lot(s). Individual traceable products shall be lot-date-coded.

**QLD LOT DATE CODE ONE YEAR**
Supplier shall, for each part identity, provide all parts with a lot-date-code no more than one (1) year prior to the date of the Purchase Order to LMSSC.

**QDM LOT DATE CODE TWO YEARS**
Supplier shall, for each part identity, provide all parts with a lot-date-code no more than two (2) years prior to the date of the Purchase Order to LMSSC.

**QDV PRODUCT ASSURANCE P425540**

**QF6 PRODUCT ASSURANCE D824156 APPLIES**
LMSSC D824156, Rev. C, Requirements for EEE Devices 8436 (including Addendum 1) applies.

**OEH DIMENSIONAL INSPECTION CRITICAL CHARACTERISTICS**
The contractor shall perform 100% inspection of critical characteristics identified in the Lockheed Martin engineering document. The contractor shall submit a certificate of compliance with each shipment attesting that all critical characteristics have been verified, to meet the requirements of the engineering document(s). The certification shall contain as a minimum a listing of the critical characteristics verified, the name of contractor, part number, purchase order number, serial number(s) (when applicable) and quantity of parts shipped. Certification must be validated by an authorized representative of the contractor's Quality Department, by either an Inspection Stamp or signature and a date in which the inspection occurred.

**QFC GROUP INSPECTION MOUNTS/COUPONS**
All mounts used for Group A Inspections and any remaining part of the coupon that has not been micro sectioned must be included in the shipment and will be stored at LMSSC. Mounts/coupons must be bagged separately from the PWB, but may be attached to the PWB bag. Mounts/coupons are subject to verification by LMSSC Materials & Process Lab prior to final hardware acceptance.

**OGL CLEAN ROOM REQUIREMENT**
Seller must mark all packages "OPEN ONLY IN LMSSC CLASS 10,000 OR BETTER CLEAN ROOM".

**QLJ COMPLIANCE WITH ACCEPTANCE TEST REQUIREMENTS**
Items shipped against this order shall be accompanied by evidence of Seller's compliance with acceptance test requirements specified in design data or this order. Such evidence shall include a copy of acceptance test data with required actual variable data from acceptance tests performed by Seller to Buyer's Specifications or other requirements of this order. b. Test data shall (i) be verified by Seller's Product Assurance or Quality Representative in a manner that identifies the verifying individual, (i) be provided in accordance with applicable test procedure requirements on either data sheets or, when automated test requirement is used, in a format acceptable to Buyer; (iii) be suitable for micro-filming; and (iv) be retrievable by Seller for three (3) years from date of final payment, for review upon request by Buyer or the Government. c. Prior to performance of acceptance test utilizing automated test equipment, Seller shall obtain Buyer's concurrence in Seller's computerized test data format.
QLM ACCEPTANCE TEST PROCEDURE APPROVAL

Seller shall obtain Buyer's review and approval of its acceptance test procedures (ATP), (i.e. test program, electrical and screening), prior to conducting tests on items to be delivered under this order. a. If, due to type of software or test routines involved, it is necessary for Buyer to perform this review at Seller's facility, Seller shall so notify Buyer of this requirement and of test program availability thirty (30) days prior to start of testing. b. If the ATP program plan and procedures can be transmitted to the Buyer for review, the ATP shall be submitted at least thirty (30) days prior to start of testing. Seller shall submit a copy of the ATP used for test, or a certificate indicating there vision of the ATP used for testing, with the shipment.

QLZ FAILURE/DISCREPANCY THRESHOLD

If this Purchase Order is for any of the art types listed below, Seller shall inform Buyer of test failures/discrepancies on end item acceptance test that exceed the percentage listed below: Capacitors ---> Failure/Discrepancy Threshold = 20%, Crystal Oscillators ---> Failure/Discrepancy Threshold = 20%, Diodes and Transistors ---> Failure/Discrepancy Threshold = 20%, Fuses ---> Failure/Discrepancy Threshold = 15%, Microcircuits, Hybrids ---> Failure/Discrepancy Threshold = 20%, Microcircuits, Monolithic ---> Failure/Discrepancy Threshold = 30%, Printed Circuit Boards/Flex Cables ---> Failure/Discrepancy Threshold = 20%, Relays ---> Failure/Discrepancy Threshold = 15%, Resistors ---> Failure/Discrepancy Threshold = 15%, Thermistors ---> Failure/Discrepancy Threshold = 15%. In the event any drawing, specification, or other document incorporated in this Purchase Order contains a conflicting requirement, the drawing, specification, or other document shall take precedence over this clause. Notification shall be submitted to Buyer via Vendor (Supplier) Request for Information or Change (VRIC), which may be obtained from Buyer.

QM7 CONFORMANCE REQUIREMENTS - MECHANICAL DETAILS

The instrument(s) used for final acceptance must be calibrated to and capable of measuring one-fifth of the tolerance (±1 accuracy ratio) to be checked. And a certification of this capability must be submitted with each shipment. Supplier's Quality Department shall one-hundred percent (100%) inspect all parts to assure total conformance to all drawing characteristics and requirements. The actual measured results from one (1) part of each lot must be documented and submitted with each shipment. In addition, the actual measured results for all XXXX dimensions and dimensions with a tolerance of 0.002 or tighter shall be recorded for all parts and this data submitted with the parts upon delivery to Lockheed Martin.

QM9 PRINTED WIRING BOARD ACCEPTANCE DOCUMENTATION

The supplier shall submit a Printed Wiring Board Acceptance Summary (Form DEN 500536) with each part number shipped.

QM10 STATEMENT OF WORK

Articles defined in this Purchase Agreement are subject to additional requirements per a statement of work, which must be met to achieve compliance to contract requirements. Articles will not be accepted by Lockheed Martin if contractor fails to comply with the requirements of the statement of work.

QM12 MATERIAL TRACEABILITY FOR BUILD TO PRINT PURCHASES

The contractor shall provide and maintain material traceability for the items in the purchase agreement. Parts shall be identified with a unique lot number for each lot (manufacturer/heat/lot/batch number) of raw material used in their fabrication. If hardware assembly is applicable to this purchase agreement, traceability shall be maintained through delivery and fabrication records shall summarize the identification of all elements within each assembly.

QM13 MATERIAL TRACEABILITY FOR PD/ST PURCHASES

The supplier shall establish a system for the identification, traceability and control of materials, parts and assemblies from acquisition through fabrication, assembly, test and delivery. The system shall provide for the ready identification of suspect lots when individual items are found discrepant.

IDENTIFICATION

- Design specifications, source control drawings, and other procurement documentation shall include provisions for identification of materials, parts, and assemblies through one or both of the following procedures:
- Serialization of individual elements, such as parts, boards, modules, assemblies, etc., as appropriate with each element identified by a unique number or code.
- Lot/group identification when processing impacts a common characteristic within the lot (e.g., mix number, heat number, wire spool, etc.) with each lot identified by a unique number or code.

RECORDS
Special Provisions, Quality Assurance Clauses

- The contractor shall maintain fabrication records which summarize the identification of elements within an assembly. Records shall include name of supplier, date of manufacture, screening date and other pertinent information.

**QM16 DOCUMENTATION ACCEPTANCE (DROP SHIPMENT)**
Articles ordered under this contract are to be drop shipped to a destination other than Lockheed Martin. Final acceptance is contingent on the submittal and approval of the Quality data.

**QM17 SINGLE DATE/LOT CODE**
Parts delivered against this Contract shall be from a single date/lot code. The lot identifier shall be recorded on all certificates and packages for this order. Authorization for shipments with multiple date/lot codes must be pre-coordinated with your Lockheed Martin Buyer. When mixed date/lot codes are authorized, the shipping document shall list individual date/lot codes and quantity. Multiple lot/date codes shall not be co-mingled.

**QML RADIATION LOT ACCEPTANCE TEST**
Supplier must accomplish Radiation Lot Acceptance Test (RLAT) testing of items delivered under this PO.

**QMY CALIBRATION ANSI/NCSL-Z540-1-1994**

**QN5 PLATING REQUIREMENT**
When the part specified in this Purchase Order requires Cadmium Plating, F120061 E, Cadmium Plating Certification Specifications for LMSSC Procurement Fasteners, and F120172 C, Approved Sources For Cadmium Plating and X-Ray Spectrometry (X-Ray Fluorescence) Inspection of Fasteners for LMSSC apply.

**QP3 SPECIAL MARKING**
Seller to comply with special marking requirements specified by the applicable detail or process specification.

**OPC UNRELEASED DOCUMENTATION CONTROL**
When procurement is to LMSSC unreleased documentation, supplier shall impound hardware upon completion of the build pending receipt of LMSSC released documentation via a Procurement change notice. Once documentation is official released, supplier may ship hardware.

**OPS ENGINEERING PURCHASE SPECIFICATION (EPS) APPLY**
The supplier shall: (1) Procure materials, processes and/or production services only from LMSSC approved suppliers listed in the LMSSC Engineering Purchasing Specifications (EPS). (2) Perform only to the revision of the EPS in effect on the date the purchase order or subcontract was placed. (3) Obtain from suppliers required certifications and/or reports (certificates of conformance, test reports, etc.) listed in the applicable EPS. LMSSC may review, audit, or perform surveillance of activities by your sub tier suppliers, during performance of this order.

**QOB DIMENSIONAL INSPECTION REPORT**
Inspection, Dimensional. Perform a 100% dimensional inspection on one part, randomly chosen, or, if more than one machining process line is used, one part chosen from each line to confirm that each line produces acceptable hardware. Record actual dimensional data for each selected part and ship one copy of the data with the hardware.

**QQK ABBREVIATED RAW MATERIAL CERT**
Hardware delivered per this order shall be traceable to the raw material used for manufacture by source (lot, batch or heat number, material type, specification, applicable revision letter or number and records of acceptance). The lot identifier shall be recorded on all certificates and packages for this order.

**QS5 FOREIGN OBJECT DAMAGE (FOD) CONTROL**
Supplier shall maintain a Foreign Object (FO) Control program with a documented and current plan assuring work is accomplished in a manner preventing foreign objects or materials from entering and remaining in deliverable items. The supplier shall identify a FO Control person responsible for implementing the FO Control program. Supplier shall provide FO Control program training to employees performing operations on LMSSC FOD Sensitive products. Maintenance of the work area and control of tools, parts and material shall preclude the risk of FO incidents. Prior to closing inaccessible or obscured areas and compartments during assembly, the Supplier shall inspect for foreign objects/materials. Tooling, jigs, fixtures, and test or handling equipment shall be maintained in a
state of cleanliness and repair to prevent Foreign Object Damage (FOD). The Supplier shall document and investigate all FOD incidents assuring elimination of the root cause. Lockheed Martin shall have the right to perform inspections, verification and FO Control program audits at Supplier’s facility to assure program documentation and effectiveness. Supplier shall flow down requirements as required to their Suppliers to ensure compliance to this requirement. Supplier shall provide a statement of certification that deliverable products are free of any foreign materials that could result in foreign object damage to the installed product or companion components /systems.

**QSSB FOREIGN OBJECT DAMAGE (FOD) CRITICAL REQUIREMENTS**
Supplier shall maintain a Foreign Object (FO) Control program with a documented and current plan assuring work is accomplished in a manner preventing foreign objects or materials from entering and remaining in deliverable items. The supplier’s FO Control program processes shall be provided to the LMSSC FOE Program Management for review and approval. The supplier shall identify a FO Control person responsible for implementing the FO Control program. Supplier shall provide FO Control program training to employees performing operations on LMSSC FOD Sensitive products. Maintenance of the work area and control of tools, parts and material shall preclude the risk of FO incidents. Prior to closing inaccessible or obscured areas and compartments during assembly, the Supplier shall inspect for foreign objects/materials. Tooling, jigs, fixtures, and test or handling equipment shall be maintained in a state of cleanliness and repair to prevent Foreign Object Damage (FOD). The Supplier shall document and investigate all FO incidents assuring elimination of the root cause. Lockheed Martin shall have the right to perform inspections, verification and FO Control program audits at Supplier's facility to assure program documentation and effectiveness. Supplier shall flow down requirements as required to their Suppliers to ensure compliance to this requirement. The supplier shall report, in writing, to the contract designated technical interface, any FO damage to LMSSC FOD Sensitive products within three days of discovery and provide written cause and corrective action to the problem within 15 days of discovery. Supplier shall provide a statement of certification that deliverable products are free of any foreign materials that could result in foreign object damage to the installed product or companion components /systems.

**QSSC FOREIGN OBJECT DAMAGE (FOD) AWARENESS**
Supplier shall maintain a Foreign Object (FO) Control program assuring work is accomplished in a manner preventing foreign objects or materials from entering and remaining in deliverable items. Supplier shall provide FO Control program training to employees performing operations on LMSSC FOD Sensitive products. Maintenance of the work area and control of tools, parts and material shall mitigate the risk of FO incidents. Tooling, jigs, fixtures, and test or handling equipment shall be maintained in a state of cleanliness and repair to prevent Foreign Object Damage (FOD). Supplier shall provide a statement of certification that deliverable products are free of any foreign materials that could result in foreign object damage to the installed product or companion components /systems.

**QSS7 GRAIN DIRECTION CERTIFICATION**
The contractor shall submit with each shipment a certification, signed by a qualified contractor representative, stating that the parts supplied conform to the grain direction requirements identified in the specification/engineering. The grain direction on raw material shall be physically identified by an arrow in the direction of the grain.

**QSS8 SUPPLIER DELEGATION PROGRAM**
Contractor shall comply with the program requirements defined for Supplier Acceptance Delegation Program. The Contractor shall have the Supplier Acceptance Program Delegation letter on file, authorizing Acceptance Authority for this Purchase Order line item. Contractor must contact the Lockheed Martin Buyer prior to initiation of work if evidence of acceptance authority is not on file.

**QSS11 PROCESS PER LOCKHEED MARTIN PLANNING**
Contractor shall stamp or initial the Lockheed Martin supplied Planning upon completion of each specific step performed and shall indicate acceptance of those operations by a Quality Acceptance Stamp placed at the end of the final step of the process(s) performed.

**QSN DATA REQUIRED WITH SHIPMENT**
Drawings, sketches, and specifications sufficient to inspect and/or test this material shall accompany each shipment under this contract.

**QT4B QUALITY SYSTEM REQUIREMENTS (SAE AS9003)**
The Contractor’s Quality System shall conform to the requirements of the elements described in SAE AS9003, Inspection and Test Quality System and conform to a industry wide calibration system. Third party registration by an accredited registrar will be accepted. Contractor declaring system compliance to AS9003 with no formal
accredited registrar will be reviewed. The Contractor’s system will be subject to review and approval at all times by Lockheed Martin.

**QT4C QUALITY SYSTEM APPROVAL**
Third party registration by an accredited registrar will be accepted. Contractor declaring system compliance with no formal accredited registrar, will be reviewed. The Contractor’s system will be subject to review and approval at all times by Lockheed Martin.

**QT4D QUALITY SYSTEM (SAE AS9003 w/exclusions)**
The Contractor's Quality System shall comply, at a minimum, with the following paragraphs of SAE AS9003, Inspection and Test Quality System, in their entirety: Para’s. 4.1, 4.3, 4.6.4, 4.6.6, 4.9,4.10.1 thru 4.10.3, 4.11 thru 4.16, 4.18. Third party registration by an accredited registrar will be accepted. Contractor declaring system compliance to AS9003 with no formal accredited registrar will be reviewed. The Contractor's system will be subject to review and approval at all times by Lockheed Martin.

**QT4E QUALITY SYSTEM REQUIREMENTS (SAE AS9003 W/ ANSI/NCSL Z540-1)**
The Contractor’s Quality System shall conform to the requirements of the elements described in SAE AS9003, Inspection and Test Quality System. Third party registration by an accredited registrar will be accepted. Contractor declaring system compliance to AS9003 with no formal accredited registrar will be reviewed. The Contractor's calibration system shall conform to the requirements of ANSI/NCSL Z540-1. The Contractor’s system will be subject to review and approval at all times by Lockheed Martin.

**QT7 SELLER RETAIN TEST DOCUMENTATION SEVEN YEARS**
Seller shall retain test reports/inspection records/evidence of acceptance for a minimum of seven (7) years from the date of delivery.

**QT8 Parts, Materials and Processes**
Parts, Materials and Processes (PMP) requirements apply.

**QT9 PWB PROCUREMENT DOCUMENT REQUIREMENTS**
Printed wiring boards shall meet the requirements and Engineering Purchasing Specification(s) listed in the Procurement Document (PD). Quality records (i.e. material certifications, test data, mounts, coupons, etc.) shall be retrievable, within 24 hours after a request by LMSSC, for 3 years after closure of this PD. Notify LMSSC when the 3 year retention period expires and request further direction.

**QT85 NONCONFORMING ITEMS SEPARATION**
Seller shall identify and segregate nonconforming supplies in order to prevent their use, shipment or commingling with conforming supplies. Only Buyer's Material Review Board may authorize acceptance. Request disposition of nonconforming supplies on Vendor Request for Information or Change (VRIC).

**QTC2 PRECAP INSPECTION**
Buyer's pre-cap visual inspection is required at your facility. Upon receipt of this order, and also five (5) working days in advance of each established pre-cap inspection point, notify the Procurement Quality Assurance Representative (PQAR) who normally services the vendor's facility. Notification shall include the PO number. In the event that a Procurement Quality Assurance Representative does not normally service the Vendor’s facility, immediately notify the LMSSC Procurement Representative to obtain a point of contact for the appropriate PQAR assignment.

**QTC3 MORE DPA PARTS REQUIRED W/MULTIPLE LDC**
Destructive Physical Analysis (DPA) will be performed at LMSSC on parts listed in this order. Parts from each lot date code (LDC) require DPA. Parts with multiple LDCs require additional parts for DPA.

**QTC4 PRODUCT ASSURANCE STANDARD 8700-Q002 APPLIES**
Sellers who are not the manufacturer of this order shall conform to the requirements of Buyer's Product Assurance Standard 8700-Q002.

**QTC5 AUTHORIZED DEALER DISTRIBUTOR – ORIGINAL EQUIP MFG (OEM)**
Sellers who are not the manufacturer of this order shall conform to the requirements of Buyer’s Product Assurance Standard 8700-Q002. Seller must be an AUTHORIZED DISTRIBUTOR to the Original Equipment Manufacturer.
of product. Evidence that seller is the AUTHORIZED DISTRIBUTOR must be provided in each shipment of product.

**QTD1 DATA LIST NOT A REQUIREMENT**
Design documentation as specified by this procurement document may contain a reference note to the Data List. The Data List has been discontinued as part of the design documentation package for this item.

**QTL PRODUCT ASSURANCE P517240 APPLIES**
P517240, "LMSSC-MSO Subcontractor Quality Requirements Plan for Flight Hardware and Software" applies.

**QTS PIND TEST REQUIRED**
Particle Impact Noise Detection Testing (PIND) Devices listed in this order shall be 100% Particle Impact Noise Detection (PIND)-tested per:
(1) MIL-STD-883, Method 2020, Test Condition "A", for microcircuits,
(2) MIL-STD-883, Method 2020, Test Condition "A" or "B", for hybrids,
(3) MIL-STD-750, Method 2052, Condition "A", for transistors,
(4) MIL-PRF-19500 for diodes, and
(5) MIL-PRF-39016, Rev. E, Appendix "B", and the Manufacturer's Approved Procedure, for relays. The manufacturer or a Lockheed Martin-approved test lab shall perform PIND testing to the above requirements. PIND test data shall be delivered with the parts listed in this order.

**QTZ4 QUALITY SYSTEM (SAE AS9100 w/exclusions)**
QUALITY SYSTEM REQUIREMENTS (SAE AS9100 w/exclusions) The Contractor's Quality System shall conform to the requirements of the elements described in SAE AS9100, Quality Systems Aerospace Model for Quality Assurance in Design, Development, Production, Installation, and Servicing with exclusions to Section 7. The contractor's calibration system shall conform to the requirements of ANSI/NCSL Z540-1. The Contractor's systems shall be subject to review and approval at all times by Lockheed Martin; onsite validation required.

**QVT SELLER RETAIN TEST DOCUMENTATION FIVE YEARS**
Seller shall retain test reports/inspection records/evidence of acceptance for a minimum of five (5) years from the date of delivery.

**QW1 TESTING REQUIREMENTS**
Seller shall, as a minimum, implement calibration, records management, nonconformance and test control systems that confirm LM hardware meets test requirement's listed on the order. LM may inspect all deliverable items before, during or after test, before shipment or during final inspection and acceptance at destination. LM may require repair or rework of any deliverable item that fails to meet requirements. Rejected items may be submitted during or after testing but must be confirmed acceptable, by the Buyer, before shipment may occur.

**QXH NON-FLIGHT ITEMIDENTIFICATION**
Identify each item on this order as a Non-Flight Item (NFI).

**QYH SOURCE INSPECTION SHIPPING DOCUMENTATION DATA**
Supplier Shipping Documentation Requirements. When source acceptance is required by the Buyer, the Seller shall record the Buyer's purchase order number, part number, part number revision, ship quantity and when applicable, contract number, serial number(s), lot number(s) and model number(s) on the seller’s shipping documentation. When "ship-in-place" is required by the buyer, and a supplier shipper or packing list is not applicable shipment documentation, the seller shall record the required identification on the seller’s invoice.

**QYW QUALITY SYSTEM REQUIREMENTS (SAE AS9003 – ANSI/NCSL Z540-1)**
The Contractor's Quality System shall conform to the requirements of the elements described in SAE AS9003, Inspection and Test Quality System. Third party registration by an accredited registrar will be accepted. Contractor declaring system compliance to AS9003 with no formal accredited registrar will be reviewed. The contractor's calibration system shall conform to the requirements of ANSI/NCSL Z540-1. The Contractor's systems shall be subject to review and approval at all times by Lockheed Martin.

**QYX QUALITY SYSTEM REQUIREMENTS (SAE AS9100 – ANSI/NCSL Z540-1)**
The Contractor's Quality System shall conform to the requirements of the elements described in SAE AS9100, Quality Systems Aerospace Model for Quality Assurance in Design, Development, Production, Installation, and Servicing. Contractor declaring system compliance to AS9100 with no formal accredited registrar will be reviewed. The contractor's calibration system shall conform to the requirements of ANSI/NCSL Z540-1. The Contractor's systems shall be subject to review and approval at all times by Lockheed Martin.

**OZ2 TITLE UPDATES**

Some terminology and forms that have been superseded may be contained in requirements documents that have been imposed on your contract. When the title, P.A.S.R., Product Assurance Supplier Representative, is used, this is now replaced by the title - P.Q.A.R., Procurement Quality Assurance Representative. When the acceptance document P.S.V.R., form 3002 Product Status / Verification Report document is referenced, please note this document has been replaced by the electronic record currently designated by the acronym QUASAR, Quality Assurance Supplier Activity Report.