Quality Clause Q30 Revision: 2 11 February 2011

## Joint Strike Fighter F-35 Advanced Quality Requirements Supplier Manufacturing Process Capability Measurement Plan Data Submittal

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\* Revised \*\* Added

Notice: A hard copy of this document may not be the document currently in effect. The current version is always the version on the Lockheed Martin network.

- \* A. SELLER shall measure Work in accordance with the Lockheed Martin Aeronautics ("LOCKHEED MARTIN") Build to Package ("BTP") identified in this Contract. The BTP number is identified as the purchased Item on the line item of this Contract. The BTP is released LOCKHEED MARTIN engineering and resides in Product Data Manager ("PDM"). The BTP contains all the necessary released engineering required to manufacture, identify, measure, inspect, and test deliverable product.
- \* B. SELLER shall request and obtain access to PDM and the Joint Strike Fighter Data Library ("JDL"). SELLER must comply with the Joint Strike Fighter ("JSF") Program International Traffic in Arms Regulations ("ITAR") requirements prior to requesting PDM and JDL accounts and access. SELLER shall request requirements regarding compliance with the JSF program ITAR and access to PDM through the LOCKHEED MARTIN Supply Chain Management buyer identified in this Contract.
- \* C. SELLER manufacturing Work via direct Contracts from LOCKHEED MARTIN shall have the capability to read, execute, and report measurement data in a format outlined in 2YZA00720 Measurement Plan or in a format approved by the LOCKHEED MARTIN Quality Engineer per the process described in paragraph I.
- \*\* D. When Key Characteristics are identified on the associated Contract drawings, SELLER shall use 2YZA00720 Technical Document located in PDM in lieu of the First Article Inspection and Recurring Inspection PowerPoint measurement plans contained in the BTP.
- \* E. SELLER shall submit Key Characteristic measurement data to the SELLER-assigned folder within the Subcontract Management area of JDL. SELLER shall not submit Key Characteristic measurement result data directly to the LOCKHEED MARTIN Supply Chain Management buyer listed in this Contract. Key Characteristic measurement data are the first pass inspection results prior to any repair/rework.
- \* F. SELLER shall use Key Characteristic measurement data to calculate Manufacturing Process Capability ("Cpk") and identify areas for collective and continual manufacturing process improvement toward a goal of Cpk of 1.33 or better.

Quality Clause Q30 Revision: 2 11 February 2011

- \*\* G. SELLER shall submit Key Characteristic measurement data within five (5) business days of having completed the measurement task.
- \*\* H. SELLER, upon LOCKHEED MARTIN request, shall submit the following summary data for any sub-indentured parts within the Bill of Material assigned Key Characteristics.
  - Discrete measurements
    - first pass yield
    - Cpk or Capability Index ("Cp")
    - short term sigma
    - number data points measured
  - Attribute measurements
    - first pass yield
    - number data points measured
- \*\* I. SELLER, upon entering a LOCKHEED MARTIN approved Reduced Inspection Plan, shall submit Key Characteristic summary data on the following major processes on a quarterly basis, or upon LOCKHEED MARTIN request.
  - Composites
    - inner mold line ("IML") surface machining
    - interchangeable hole position drilling
    - interchangeable edge of part trim
    - part thickness cured laminate compensation ("CLC")
    - part thickness (machined)
    - edge of part location (normal to surface)
    - edge of part location (bevel)
    - cut out location
    - cure process integrity (non-destructive inspection)
  - Metallic
    - multi-axis profiling
    - planar surface profiling
    - hole position
  - Assembly
    - part location during structural assembly
    - gap & mismatch
- \* J. SELLER shall submit questions regarding measurement plans, measurement data, Cpk, or other advanced quality and/or engineering requirements to LOCKHEED MARTIN through the Electronic Supplier Problem and Resolution ("e-SPaR") system. For access to the e-SPaR system, SELLER shall contact the LOCKHEED MARTIN Supply Chain Management buyer listed in this Contract.