Task Order 59-12 Rev. 1

1.0 TITLE OF EFFORT: Receiving Inspection Test Facility (RITF) Support

1.1 TASK DESCRIPTION

1.1.1 The effort described by this Task Order provides the JSC S&MA Directorate with the expertise and ability to provide mechanical and electrical part testing, failure analysis and evaluations, and specialized training in NASA workmanship standards in support of NASA programs and projects. The RITF is located at JSC and provides services to JSC Directorates, contractors and subcontractors. The RITF also provides support to other NASA Centers and other Government agencies when tasked and funded.

1.1.2 The Contractor shall provide the engineering and technical services necessary to operate the RITF and to accomplish the testing, evaluation, and training services.

1.1.3 The contractor shall be capable of operating and maintaining the lab on a fee-for-service basis.

2.0 STATEMENT OF WORK REFERENCE

Section 10.0 Receiving Inspection Test Facility (RITF)
Section 5.0 Program Support

2.1 REQUIREMENTS

2.1.1 The Contractor shall perform the following testing and analysis within the RITF:

2.1.1.1 Destructive and nondestructive physical, chemical, and metallurgical testing and analyses of raw materials, fasteners, and mechanical hardware and components, etc. Testing includes ultimate load, hardness, and quantitative chemical analysis of fasteners (e.g., bolts and rivets). Fastener testing shall be conducted in accordance with the requirements of JPR 8730.2 “JSC Fastener Integrity Testing Program” and NASA-STD-6008 “NASA Fastener Procurement, Receiving Inspection, and Storage Practices for Spaceflight Hardware”.

2.1.1.2 Failure analysis of electronic and mechanical components

2.1.1.3 Burn-in of electronic components.

2.1.1.4 Application research and testing on electronic parts proposed for use in environments not specified by the manufacturer (e.g., vacuum, extremely high or low temperatures, plasma inducing pressure levels).

2.1.1.5 Incoming inspection of electrical assemblies used in critical and life-support hardware.

2.1.1.6 Incoming screening of wire and cable to be used for flight Projects at JSC per the requirements of JSCM 8080 E-24, Manned Spacecraft Criteria and Standards.

2.1.1.7 In performing RITF services, the Contractor shall establish test and analysis requirements, perform inspections, screen and test, evaluate test and screening results, and prepare documentation to be returned to the customer. In the case of a failure analysis, the Contractor shall also include determination of failure cause, and process or manufacturing corrective action recommendations.

2.1.2 TRAINING

2.1.2.1 The Contractor shall provide training courses for the following processes:

a. Through-hole soldering and inspection
b. Surface mount soldering and inspection
c. Cable and harness crimping and inspection
d. Wire-wrap
e. Lithium battery handling
f. Conformal coating fabrication and inspection
g. Fiber optic termination
h. Electrostatic discharge (ESD) control
i. Other related courses as identified in the future to support changing and new NASA program and project workmanship standards

2.1.2.2 The Contractor shall record all training conducted and employees trained. The Contractor shall track certifications resulting from process certification courses conducted and notify the training coordinator or designee when certifications require renewal.

2.1.2.3 The Contractor shall provide a comprehensive training and cross-training program for all RITF personnel including formal and on-the-job training, as well as RITF equipment proficiency training. Training requirements and fulfillment are to be documented in the S&MA training data system in accordance with DRD 14, S&MA Personal Qualification Program Plan.

2.1.3 QUALITY

2.1.3.1 The Contractor shall maintain a Quality Management System (QMS) in the RITF compliant with ANSI ASQ Q9001-2000, Quality Management Systems Requirements in accordance with DRD 06, Quality Manual.

2.1.3.2 The Contractor shall ensure the existing American Association for Laboratory Accreditation (A2LA) to ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories, accreditation is maintained.

2.1.3.3 The Contractor shall maintain the RITF's procedures, equipment, management, and personnel in compliance with ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories.

2.1.3.4 Upon receipt, the Contractor shall submit a copy of audit reports generated by internal or external auditors of the RITF to NASA RITF management. The Contractor shall provide written statuses per DRD 16, Activity Reports, of any open work remaining after an audit (such as auditor findings and observations) until the open work is completed and approved by the auditing organization.

2.1.3.5 The equipment provided by the Government for performance of RITF activities is listed in Section J of the contract.

2.1.3.5.1 The Contractor shall be responsible for the maintenance of RITF equipment. The Contractor shall plan, coordinate, and manage the resources to perform RITF services. The Contractor shall maintain a prioritized life-cycle replacement and acquisition list of equipment needs that ensures continuity of RITF services and expansion of capacity to accommodate approved Program and Project requirements.

2.1.3.5.2 The Contractor shall maintain a Laboratory Information Management System (LIMS) provided by NASA. This system shall be used by the Contractor to track information and costs for all jobs performed by the RITF. The LIMS system shall be accessible by both Contractor and NASA personnel.

2.1.3.6 The Contractor shall ship and receive all equipment and materials leaving or entering the RITF through the shipping and receiving area. The Contractor shall record and maintain information necessary for tracking incoming and outgoing shipments. For items being shipped or received by commercial package delivery or by the U.S. Postal Service, the Contractor shall coordinate with the JSC shipping and receiving departments.

2.1.3.7 ELECTROSTATIC DISCHARGE VERIFICATION AND TESTING OFFICE

2.1.3.7. 1 The contractor shall identify, inspect and certify JSC facilities handling ESD Sensitive (ESDS) materials per JPD 8730.2, “Electrostatic Discharge Control Policy for the Protection of Electronic Components and Assemblies”.

2.1.3.7. 2 The contractor shall evaluate qualify and perform periodic verification testing of ESD protective materials and devices, e.g. ionizers, anti-static packaging materials, ESD garments and tools per JPD 8730.2, “Electrostatic Discharge Control Policy for the Protection of Electronic Components and Assemblies”.

2.2 PRODUCTS

The contractor shall deliver applicable reports and analyses as stated in this Task Order.

3.0 PERIOD OF PERFORMANCE: October 1, 2011 - September 30, 2012.

4.0 ESTIMATED COST

Contractor may provide travel, training, materials, and other non-labor resources as necessary to support task order requirements. Training may include selected professional discipline-based or spaceflight-based conferences with approval of the TMR.