

Task Order – LDCM-PMSE-1.3.3-001 Ground Readiness Test 4a (GRT4a)

A. Task Assumptions and General Notes

- Detailed design, coding and software unit testing are complete for all necessary subsystems that are part of GRT4a
- Configuration management including software configuration management is not included in this task order
 - Configuration (hardware, software) of the system is already under configuration control
 - All interfaces have already been placed under configuration control
- All facilities and integration and test infrastructure required for GRT4a are provided and ready for use
- Installation of all software necessary for GRT4a has been installed in the GRT environment
- Connectivity testing has been completed for internal and external interfaces necessary for GRT4a
- Purpose of GRT tests are included in the Ground Readiness Test Plan
- Test datasets have been defined and generated through a separate task order and are ready for use when GRT4a tests begin.
- Any software changes that are necessary during or after GRT testing will be made through a separate task order
- Task Order LDCM-PMSE-1.3.3-001 will start 4/1/2010.

B. References

- The following is provided in the bidder's library
 - LDCM Ground System Integrated Master Schedule (draft Version 0.2.5)
 - LDCM Ground System Systems Engineering Management Plan (LDCM-MP-007 Version 3.0)
 - LDCM Ground System Requirements Document (LDCM-REQ-001, Version 2.1)
 - LDCM Ground System Interface Requirements Document (LDCM-REQ-011, Version 1.5)
 - LDCM Ground System Operations Concept Document (LDCM-OCD-002)
 - LDCM Ground System Integration and Test Plan (LDCM-I&T-001 Version 1.1)
 - LDCM Ground Readiness Test Plan (LDCM-I&T-002, Version 1.0)
 - LDCM Ground System Verification Requirements Matrix (LDCM-VRM-001)
 - LDCM Ground Network Element Operations Concept Document (LDCM-OCD-006 Version 1.0)
 - LDCM Data Processing and Archive System Operations Concept Document (LDCM-OCD-007 Version 1.0)

C. Background

The Landsat Data Continuity Mission (LDCM) Ground System (GS) is a component of the LDCM mission being conducted jointly by the National Aeronautics and Space Administration (NASA) and the USGS of the Department of the Interior (DOI). The USGS is responsible for the development of a ground system to receive, ingest, archive, calibrate, process, validate and distribute LDCM science data. The LDCM Project located at USGS EROS manages these responsibilities.

The main goal of the USGS LDCM project is to deliver a fully tested system to LDCM Operations to support the launch, on-orbit initialization and validation and commissioning of the LDCM observatory and transition this system to USGS Landsat Operations for long term operation. The requirements for this system are end-customer based and formally developed and decomposed through systems engineering processes (LDCM-MP-007). Testing is done in a hierarchical fashion matching the requirements decomposition starting at software unit testing of Level 5 requirements and building up to operational and performance testing of Level 2 requirements.

D. Scope of Work

This task order is focused on detailed planning and execution of the USGS portions of Level 3 Ground System requirements and specifically the functionality to be delivered for Ground Readiness Test 4a (GRT4a). Additional detail on the Ground Readiness Tests may be found in the LDCM Ground Readiness Test Plan (LDCM-I&T-002, Version 1.0).

E. Description of Task - Plan and implement Ground Readiness Test 4a (GRT4a)

The contractor shall plan, execute and document the results of GRT4a. The contractor shall develop test cases to verify Level 3 requirements. The contractor shall develop test procedures corresponding to Level 3 requirements test cases. The contractor shall identify the necessary resources to plan, execute and document GRT4a. The contractor shall execute the GRT4a tests. The contractor shall prepare documentation/presentations for and hold a Test Readiness Review to Government approval prior to proceeding with GRT4a test execution. The contractor shall monitor, document and report on test discrepancies during test execution. The contractor shall prepare and deliver GRT4a lessons learned.

F. Deliverables

The contractor shall deliver to the USGS:

- Resource loaded schedule for GRT4a contractor activities (MS Project format)
- Basis-of-Estimate for the resource loaded schedule
- GRT4a Test Plan
- GRT4A Test Cases
- GRT4a Test Procedures
- Test Readiness Review template
- Test Readiness Review
- Test Discrepancy Reports
- GRT4a Test Report
- GRT4a Lessons Learned

G. Due Date

The GRT4a Test Report shall be completed on or before 4/8/2011.

H. Acceptance Criteria

The COR will accept the Task Order deliverables based on the completion of GRT4a test execution and the delivery of all items listed above that will be reviewed against the following general criteria:

- Accuracy – Work Products shall be accurate in presentation, technical content, and adherence to accepted elements of style.
- Clarity – Work Products shall be clear and concise. Any/All diagrams shall be easy to understand and be relevant to supporting narrative.
- Consistency to Requirements – All work products shall satisfy the requirements of this contract.
- File Editing – All text and diagrammatic files shall be editable by the Government.
- Format – Work Products shall be submitted in hard copy (where applicable) and in media mutually agreed upon prior to submission, unless otherwise specified herein. Hard copy formats shall follow any specified Directives or Manuals.
- Timeliness – Work Products shall be submitted on or before the due date specified herein or submitted in accordance with the scheduled date included in the approved Task Order.
- The Task Order Manager or designated inspector will review for completeness, preliminary or draft documentation that the Contractor submits, and may return it to the Contractor for correction. Absence of any comments will not relieve the Contractor of the responsibility for complying with the requirements of the Task Order. Final approval and acceptance of documentation required herein shall be by letter of approval and acceptance by the Task Order Manager. The Contractor shall not construe any letter of acknowledgement of receipt material as a waiver of review, or as an acknowledgement that the material is in conformance with this Task Order. Any approval given during preparation of the documentation shall not guarantee the final acceptance of the completed documentation