

**SAMPLE TASK ORDER #1**  
**LANDSAT NEXT TASK**  
**STATEMENT OF OBJECTIVES (SOO)**

**I. Background and Purpose:**

The Landsat Program is a series of remote sensing satellites conducted jointly by the National Aeronautics and Space Administration (NASA) and the U.S. Geological Survey (USGS). The most recent satellite in this series, Landsat 8 [also referred to as the Landsat Data Continuity Mission (LDCM)], was launched in February 2013. The follow-on mission, for the purposes of this sample task order, will be referred to as Landsat Next. The goal of Landsat Next is to continue the collection, archival, and distribution of multispectral imagery affording global, synoptic, and repetitive coverage of the Earth's land surfaces at a scale where natural and human-induced changes can be detected, differentiated, characterized, and monitored over time. The Landsat Next goal is in keeping with the Landsat programmatic goals stated in the United States Code (USC) Title 15, Chapter 82 "Land Remote Sensing Policy" (derived from the Land Remote Sensing Policy Act of 1992). This policy requires that the Landsat Program provide data into the future that are sufficiently consistent with previous Landsat data to allow the detection and quantitative characterization of changes in or on the land surface of the globe. Landsat Next was conceived as a follow-on mission to the highly successful Landsat series of missions that have provided satellite coverage of the Earth's continental surfaces since 1972. The data from these missions constitute the longest continuous record of the Earth's surface as seen from space.

**II. Scope:**

NASA has the lead responsibility for mission definition, development of the space segment, launch, and on-orbit checkout of the Landsat Next mission. Under the USGS Landsat Next Development Project, the USGS is responsible for the development and integration of the Ground System. The Ground System consists of three major elements – the Mission Operations Center (MOC), the Ground Network Element (GNE), and the Data Processing and Archive System (DPAS). The DPAS is made up of the following subsystems: Ingest, Storage and Archive, Inventory, Subsetter, Image Assessment System, Level 1 Product Generation System, User Portal, and the Mission Management Office (MMO) Database System. See LDCM-OCD-007 DPAS Operations Concept for information on the DPAS.

The scope of this sample task order is for the development of the Ingest subsystem of the DPAS for the Landsat Next mission. The Ingest subsystem processes Mission Data received from the Ground Network Element (GNE) and creates Level 0 Reformatted Archive (LORa) data. The Ingest subsystem performs the following functions:

- Decompress Mission Data
- Perform initial quality checks
- Ancillary data reconstruction
- Create interval and scene metadata
- Format the data for efficient storage and processing (LORa)
- Extract and/or calculate sensor, spacecraft, and image statistics
- Generate calibration bias parameters from shutter data

For estimating purposes, the contractor should assume the same mission data format as Landsat 8 (see LSDS-749 Landsat 8 (L8) Mission Data Format Control Book (DFCB) for the data format to assume). For the purposes of this sample task, the contractor should assume a new development of this subsystem and not simply reuse or modify the existing Landsat 8 Ingest subsystem.

**III. Performance Objectives:**

The TSSC shall provide:

- A. Systems Engineering reviews to include:
  - a. System Requirements Review (SRR)
  - b. Preliminary Design Review (PDR)
  - c. Critical Design Review (CDR)
  - d. Test Readiness Review (TRR)
  - e. Operations Readiness Review (ORR)
- B. Monthly Project Status Review to include:
  - a. Reporting as a “Tier 1” system compliant with the LSDS Financial and Performance Requirements Document (see LSDS-456)
  - b. Technical progress to date summary and plans for following month
  - c. Schedule status, including critical path analysis
  - d. Current TSSC risk register with mitigation plans

**IV. Period and Place of Performance:**

- A. The period of performance is from Start of task plus 12 months.
- B. All work will occur on-site at the USGS EROS Center located near Sioux Falls, South Dakota; however, the Government may allow exceptions for proposed off-site performance.

**V. Operating Constraints:**

- A. The Government will provide all property necessary for the execution of work performed on-site at the EROS Center. The Government may, on an exception basis, furnish property for work performed off-site. “Furnish” and “Property” are as defined in Federal Acquisition Regulation 45.101.

- B. The TSSC contractor shall comply with requirements of customer Memorandums of Understanding, Memorandums of Agreement, or similar documents which will be made available either through EROS internal website, on electronic media or hardcopy.
- C. Non-Disclosure Agreements (NDAs) may be required with NASA and USGS Landsat Next vendors.
- D. Foreign personnel may be submitted for performance, but require Government approval and must be appropriately firewalled from export-sensitive material.
- E. Travel within the United States may be required in support of this SOO. A minimum of 5 trips within the continental U.S. should be assumed for this task.