

# Landsat Data Continuity Mission

*presented by*

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Science Team Meeting

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# Revised Strategy

**LDCM**

- **OSTP Director Marburger signed Dec. 23, 2005 memorandum with subject line, “Landsat Data Continuity Strategy Adjustment”**
  - supercedes previous direction to fly Landsat sensors aboard NPOESS satellites (Aug. 04, 2004 memorandum)
  - Directs NASA to acquire free-flyer spacecraft
  - Assigns DOI / USGS the responsibility for operating the spacecraft
  - States goal of developing “a long-term plan to achieve, technical, financial, and managerial stability for operational land imaging”

# RFP Synopsis

**LDCM**

- **NASA placed a synopsis of our intent to release an LDCM RFP on the NASA Acquisition Information System (NAIS) web site on Feb. 22**
  - “NASA is considering issuing a solicitation for a Firm Fixed Price (FFP) contract for a free-flyer spacecraft mission”
  - “NASA is planning a single award for the development and delivery of a spacecraft, instrument, observatory integration and test, and operational systems/sustaining engineering support”
  - “NASA plans to issue the solicitation with an **optional requirement** for the instrument to observe a portion of the **thermal** spectrum”
  - “NASA plans to transfer ownership of the observatory and the associated contract to the USGS who will then operate the spacecraft and manage the data.”
- **Draft technical documents and draft requirements publicly available on LDCM web site:**

<http://ldcm.nasa.gov/procurement.html>

# Science Team Solicitation Status

**LDCM**

- The USGS posted an intent to release a request for proposals (RFP) for eight Landsat Science Team awards on April 6, 2006.
- The formal RFP will be released on April 21, 2006. Copies of the RFP will be available electronically on  
<http://ideasec.nbc.gov>
- Responses will be due June 2, 2006 at 3:00pm MST.
- Announcements of awards is expected to be in early August 2006.
- The solicitation is being issued using full and open competition.

## Science Team Responsibilities

**LDCM**

- Provide science-based feedback on critical design issues, including instrument and data systems
- Contribute to the specification and design of the data acquisition strategy and data access systems
- Conduct experiments on science and applications elements of program
- Represent the breadth of user perspectives and their requirements on product formats and product generation issues
- Provide insights on long-term issues (e.g., gap-filling options, future missions)
- Consider interoperability of Landsat with other systems currently in orbit or planned for launch within the LDCM operational timeframe
- Participate in representation tasks (e.g., provide data for demos or presentations and represent mission in selected forums including scientific meetings)

# Science Team Composition

**LDCM**

- **Landsat Science Team will consist of approximately 16 members**
  - Competed and funded seats
    - External scientists (8 research and development contracts @ approximately \$90k average award)
  - Other competed seats – supported by home organization
    - Federal agency scientists (3-5)
    - International scientists (2-3)
  - LDCM Ex Officio Members
    - USGS (Tom Loveland, John Dwyer)
    - NASA (Jim Irons, others?)

# Ancillary Efforts

**LDCM**

- **“Mid-Decadal Global Land Survey”**
  - Goal is to create a data set affording orthorectified global coverage for 2005 using Landsat 5 data, Landsat 7 composite data, and/or data from other Landsat-like sensors (e.g., ASTER) in a consistent format
  - Initiated by Dr.’s Gutman, Tucker, & Justice
  - USGS is lead agency for data acquisition and capture into archive
- **Landsat Data Gap Study Team**
  - Developing strategies to mitigate now probable Landsat data gap
  - Multi-agency and academic participation
  - Reported strategic approach to OSTP in July, 2005
  - Formed inter-field-center (GSFC, SSC, EROS) Data Characterization Working Group (DCWG)
    - Collaborating sensor performance and data quality characterizations for one year period

## Ancillary Efforts (cont.)

**LDCM**

- **OSTP / NSTC Operational Land Imaging Long-term Planning Group**
  - Follow-up to direction in Dec. 23 Marburger memo: “The National Science and Technology Council, in coordination with NASA, DOI/USGS, and other agencies and EOP offices as appropriate, will lead an effort to develop a long-term plan to achieve, technical, financial, and managerial stability for operational land imaging”



## Summary

**LDCM**

- **An RFP for a free-flying LDCM satellite is in development at GSFC**
- **A Landsat data gap is likely**
  - Mitigation strategies in development
- **USGS is planning to release an RFP for a LDCM Science Team on April 21**
- **The future of land imaging is in discussion at OSTP/NSCT**