“Dedicated to Maximizing Planetary Sample Science While Protecting the Integrity of NASA Collected Extraterrestrial Materials”

Report to the Planetary Science Subcommittee
Dec 3-4, 2009
Main CAPTEM Committee
Chair: M. Wadhwa

- Lunar sample allocation subcommittee
  Chairs: Lars Borg (LLNL)
- Stardust allocation subcommittee
  Andrew Westphal (UC Berkeley)
- Genesis allocation subcommittee
  Andrew Davis (U Chicago)
- Cosmic Dust allocation subcommittee
  George Flynn (SUNY Plattsburgh)
- Facilities subcommittee
  Dimitri Papanastassiou (JPL)

Additional Members: Christine Floss (Washington U), Brad Jolliff (Washington U), Lindsey Keller (NASA JSC), Scott Messenger (NASA JSC), Mac Rutherford (Brown U), Steven Symes (U Tennessee, Chattanooga), Allan Treiman (LPI)
Sample Allocations Since Oct 2008

- Lunar Allocations:
  - 33 requests: 29 approved, total 151 samples

- Stardust Allocations:
  - 14 requests: 14 approved (partly or fully), total 56 samples

- Genesis Allocations:
  - 9 requests: 9 approved, total 55 samples

- Cosmic Dust Allocations
  - 4 requests: 0 approved (Cosmic Dust Lab closed till Spring 2010)
Current Issues

• Inputs to the Planetary Science Decadal Survey on future potential sample returns from small bodies, Moon and Mars

• Initiation of an independent review of the status of curation of Stardust samples

• Addressing the issue (in collaboration with ESMD personnel through OSEWG) of a recent increase in the number of requests for lunar samples for engineering/resource utilization studies in anticipation of future lunar exploration
Planetary Science Decadal Survey

- Several white papers (in support of sample return from the Moon, Mars and small bodies & of curation and analytical capabilities), some co-sponsored with LEAG and MEPAG, were submitted.

- Presentations made on behalf of CAPTEM to Decadal subpanels.

- CAPTEM-sponsored white papers can be found at: http://www.lpi.usra.edu/captem/publications.shtml
Stardust Curation Status

• Stardust returned samples of Comet Wild 2 in January 2006.

• CAPTEM has initiated a review of the status of curation of these samples.

• Review Team: D. Burnett (Caltech, Chair), A. Brearley (UNM), L. Nyquist (NASA JSC), D. Papanasstassiou (JPL), S. Sutton (U Chicago/ANL)
Lunar Samples for ISRU/Engg Studies

• Dialogue with ESMD personnel (initiated through previous OSEWG co-chair Ruthan Lewis, and continuing with new chair Mike Wargo) to provide guidance in prioritization of ISRU/Engg studies utilizing lunar samples.

• Presentation made at the recent LEAG meeting (Nov 16-19, 2009) regarding CAPTEM’s role in lunar sample allocation.
New Initiatives under Consideration

• CAPTEM sponsored workshop on Lunar Volatiles in Fall 2010

• Mining the Apollo collections for “new” samples: Apollo special samples and lunar breccias

• CAPTEM sponsored workshops on tying sample science to the latest orbital data sets from Moon and Mars

• New opportunities for upper stratospheric timed collections (new cometary materials)