Small Bodies Assessment Group

Report to Planetary Sciences Subcommittee

2009 July 9

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SBAG Organizational Changes

Faith Vilas has resigned as SBAG Chair
• To serve as Co-Chair on NRC NEO Study

Mark Sykes and Hal Weaver are new SBAG Co-Chairs
• Sykes currently excluded from PSS by service on another NRC Study (“NASA Mission Enabling Activities”), but he’ll take over as SBAG Chair when that service is completed
• Weaver is already on PSS and will serve as SBAG rep until Sykes conflict is resolved

Inaugural SBAG Workshop

• 2009 January 12-13, U Maryland, College Park
• 42 participants + ~20 via WebEx
• NASA reports (SMD/Planets, NEO), Small Body mission status reports, International Cooperation (IPEWG), Technology Development
• Start work on SBAG Strategy Doc (aka “White Paper”) — 6 breakout groups created outlines, discussed in plenary
• Minutes and Findings submitted to NASA and posted at SBAG website:
  http://www.lpi.usra.edu/sbag

Small Bodies White Paper Breakout Groups

Small Bodies Science Issues: (Lead: Cochran)
Small Bodies Missions - Remote Sensing (Lead: Domingue)
Small Bodies Missions - Sample Return (Lead: Zolensky)
Population Identification & Character Assessment (Lead: Nuth)
In-Situ Space Resources Utilization (Lead: Sykes)
Hazard Assessment (Lead: Abell)

Work is proceeding this summer, but slowly
Findings and Recommendations from SBAG Meeting

- Compelling Small Body missions for Discovery, New Frontiers, and Flagship
- All planetary missions should consider ToO flybys of Small Bodies for extra science
- Technology development needed for remote and in situ investigations, sample acq and recovery, low-thrust propulsion systems, autonomous ops, nuclear power sources
- NASA should sponsor next IPEWG meeting to promote international cooperation
- Strong Research & Analysis program is critical for success of NASA missions
- Small Bodies’ incredible diversity requires Earth-based obs for population studies
- Support for PDS needed for immense data sets provided by new surveys
- NASA must continue supporting DSN for future deep space missions

SBAG Support of Decadal Survey

- Mark Sykes (PSI) is coordinating community inputs (Small Bodies + others?)
  - Host online community forum with registration required
  - Support production of sub-discipline white papers on NEOs, Asteroids, Comets, Dwarf Planets, Centaurs & Irregular TNOs, Interplanetary Dust, Irregular Satellites
  - Support discussion and polling on cross-discipline priorities for Small Bodies
- SBAG will hold a 2 hr community workshop at DPS 2009 to prioritize science
  - Submit report to Primitive Bodies Decadal Survey panel
- Calendar:
  - Final Community White Papers submitted by 9/4, posted on website and sent to PB panel on 9/5 (PB panel has first meeting 9/9-11)
  - Online Community Forum to discuss science priorities opens on 9/5
  - SBAG workshop to discuss science priorities at DPS 2009 (10/5-9)
  - SBAG submits final priorities report to PB panel on 10/27 (PB panel has second meeting 10/28-30)
- SBAG role is to support Primitive Bodies Decadal Survey panel (facilitate community inputs)
  - SBAG (Sykes) coordinates closely with PB panel Chair