

SBAG Goal I: Science

Advance our knowledge about the Solar System's formation and evolution, as well as our knowledge about the development of the conditions necessary for the origin of life, through research and exploration of small bodies.

The Committee

- Lead: Tim Swindle, U. of Arizona
- Kieran Carroll, Gedex
- Julie Castillo-Rogez, JPL
- Will Grundy, Lowell Observatory
- Emily Kramer, JPL
- Joe Nuth, NASA Goddard
- Carol Raymond, JPL
- Heaather Smith, NASA Ames

What we'd like from the community

- Read the document (13 pages long)
 - <http://www.lpi.usra.edu/sbag/goals/Goal I SBAG Science Goals 2015 1st draft.pdf>
 - Easily found from SBAG website
- On Wednesday, discuss whether our basic rationale (next slide) is the appropriate approach
- Between now and Sept. 19, email suggested changes to Tim Swindle at tswindle@lpl.arizona.edu
- Talk to anyone on the committee about suggestions (but please send them to me, as well)

Starting rationale

- Although we represent a more diverse community than other AGs (MEPAG, VEXAG, etc.), we do have common themes
 - But our different constituent groups have different highest priorities, based on the level of knowledge, level of accessibility, etc.
 - Goal I comes in two parts
 - Basic goals for science of (any) small bodies
 - Translation into more specific questions, resource needs for types of objects (“one-pagers”)
- We are not advocating for specific missions
 - Point out proposed New Frontiers missions that would be significant
 - We are advocating for non-mission programs that are crucial
- No specific numerical goals

Basic goals

- Understand the census and architecture of small bodies in the Solar System.
- Use small bodies in the Solar System to understand the origin of the Solar System
- Understand the dynamical evolution of the Solar System
- Understand the evolution of small bodies' surfaces and interiors, and the relationship to other events and processes in the Solar System
- Determine the source, amount, and evolution of volatiles in small bodies in the Solar System

Supplements (“one-pagers”)

- Asteroids
 - Comets
 - Meteorites
 - Phobos and Deimos
 - Outer Solar System Planetesimals
- Each contains:
 - Major science questions
 - Planetary mission priorities
 - Research and Analysis Contributions
 - Key Facilities and Programs