Why?

• Goals documents are valuable resources for NASA that summarize the highest priority items as identified by the community of experts.

• Such documents produced by other NASA Assessment/Analysis Groups have proven to be worthwhile.

*Discussions of the SBAG steering committee over the last few months, since SBAG 11, show general agreement that this is a worthwhile effort.*
Didn’t SBAG already do this?
• Sort of.

• SBAG undertook an extensive effort to develop a RoadMap in 2010-2011.

• There were valuable contributions from many members of the SBAG community, but the effort was never completed or circulated for vetting by the community.

• We have those documents and can use them for this new effort as appropriate.
A major lesson learned from the previous effort

• Even though the previous SBAG Roadmap effort was not completed, the uncompleted document is 215 pages.

• This is too long to be impactful, and it is not practical to keep such a large document up to date.
Guiding principles for the new SBAG goals document

1) The SBAG Goals Document must be sustainable. It needs to be easily updated on a ~yearly basis, to always be up to date and reflect the SBAG community.

2) The SBAG Goals Document should be impactful. The community is being asked to contribute to this document, so it has to be more than a waste of everyone’s time. Being impactful may mean that the document must be of a manageable length, with high-level objectives that are easily communicated.
What do other AGs do?

- MEPAG: 4 goals, 10 objectives in 52-page document
- OPAG: 3 themes taken from Decadal Survey, 36-page document in current draft form
- VEXAG: 3 goals, 7 objectives in 17-page document
- LEAG: 3 themes, 10 Goals, 81 Objectives in 140-page document
Proposed SBAG goals document structure

Discussions of the SBAG steering committee over the last few months have converged on this general structure (not these exact words):

Goal 1: Advance our Knowledge about the Solar System’s Formation, Evolution, and Origin of Life through Research and Exploration of Small Bodies

Goal 2: Identify Hazards to Earth from Near-Earth Asteroids and Inform Strategies to Mitigate the Risks

Goal 3: Support Human Exploration of the Solar System

In addition, a SBAG Technology Roadmap document will outline high-priority technology needs that support any/all SBAG goals
SBAG goals document leads

• Goal document lead, executive summary: Nancy Chabot

• Goal 1: Science: Tim Swindle

• Goal 2: Planetary Defense: Tommy Grav

• Goal 3: Human Exploration: Paul Abell

• Technology Roadmap: John Dankanich
## SBAG goals document schedule

<table>
<thead>
<tr>
<th><strong>SBAG 12</strong>: Jan., 2015</th>
<th>Kick-off of effort; presentation to community at SBAG 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>January –March, 2015</td>
<td>Leads identify structure of sections, document overall. Discuss on telecons, share with SBAG SC. Goal committees or other means established to enable community-wide contributions.</td>
</tr>
<tr>
<td>April - June, 2015</td>
<td>Draft goals sections and technology roadmap developed</td>
</tr>
<tr>
<td><strong>SBAG 13</strong>: June, 2015</td>
<td>Presentations at SBAG 13 meeting from each Lead on status – lead community discussion and share drafts</td>
</tr>
<tr>
<td>July – Nov., 2015</td>
<td>Finalize sections; compile; draft executive summary. Circulate to SBAG SC and incorporate any comments.</td>
</tr>
<tr>
<td>December, 2015</td>
<td>Distribute to SBAG community by posting finalized draft to website, sending email to listserv. Solicit community comments.</td>
</tr>
<tr>
<td><strong>SBAG 14</strong>: Jan., 2016</td>
<td>Discussion of Goals document, Technology Roadmap at SBAG 14 meeting. Solicit comments and feedback.</td>
</tr>
<tr>
<td>January –March, 2016</td>
<td>Incorporate community input, feedback. Finalize all documents. Post finalized SBAG documents to website.</td>
</tr>
</tbody>
</table>
Establish a sustainable process

<table>
<thead>
<tr>
<th>SBAG goals document general update schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. SBAG meeting</td>
</tr>
<tr>
<td>Identify leads to update each goal and the technology roadmap. Leads work with small committee to update documents over next few months.</td>
</tr>
<tr>
<td>July SBAG meeting</td>
</tr>
<tr>
<td>Leads present updated version to community at the July meeting. Posted to the SBAG website with a period of community comment before being finalized.</td>
</tr>
</tbody>
</table>

- This process would start at the SBAG 16 meeting in January 2017.
Small bodies science goals and objectives

• “Advance our knowledge about the Solar System’s formation, evolution, and origin of life through research and exploration of small bodies”

• Capture science objectives for all small bodies
  – Not just science accessible through missions, but also ground-based, samples, theoretical
  – Will not prioritize among targets
  – High level (e.g., not specific numerical goals for measurements)

• Need contributions from broad cross-section of the community

• If interested, contact Tim Swindle at this meeting or at tswindle@lpl.arizona.edu
Planetary Defense SBAG Goals Document

- Lead: Tommy Grav (PSI) - tgrav@psi.edu
- Use the NRC Report as the blueprint:
  - Survey Capability
  - Risk Analysis
  - Mitigation
  - Impact Damage and Civil Defense
Goal 3: Support Human Exploration of the Solar System

a) Identify the small body targets under consideration
   I. NEOs
   II. Martian Moons

b) Understand the knowledge needed to safely and effectively explore these objects

c) Determine how best and when to attain this information

Paul Abell (NASA Johnson Space Center)
paul.a.abell@nasa.gov