Roadmap: Population Identification and Characterization

Yan Fernandez (UCF) for the "sbag.population" group

Fifth SBAG Meeting, August 25, 2011

Status of chapter:

- In fairly good shape.
 - The structure is there, most of the bits have been filled in.
 - Sec. 0: Executive Summary with Goals and Needs
 - Sec. 1: Short Introduction
 - Sec. 2: Current Issues in Ident. and Characterization
 - Sec. 3: Matrix
 - Sec. 4: Future Ideas on what we need
 - Sec. 5: Summary of Census of Small-body groups
 - Sec. 6: References

Status of chapter:

- In fairly good shape.
 - The structure is there, most of the bits have been filled in.
 - Sec. 0: Executive Summary with Goals and Needs Done?
 - Sec. 1: Short Introduction

 Done
 - Sec. 2: Current Issues in Ident. and Characterization Done
 - Sec. 3: Matrix
 Empty
 - Sec. 4: Future Ideas on what we need Done, but...
 - Sec. 5: Summary of Census of Small-body groups Needs Work
 - Sec. 6: References Empty

Status of chapter:

- In fairly good shape.
 - The structure is there, most of the bits have been filled in.
 - Sec. 0: Executive Summary with Goals and Needs Done?
 - Sec. 1: Short Introduction

 Done
 - Sec. 2: Current Issues in Ident. and Characterization Done
 - Sec. 3: Matrix
 Empty
 - Sec. 4: Future Ideas on what we need Done, but...
 - Sec. 5: Summary of Census of Small-body groups Needs Work
 - Sec. 6: References Empty

Other generic thing that's missing:

Specific references to the Decadal.

Section 0: Exec. Summary

- Newest part.
- "Goals"
 - Improve the database of known small bodies, especially the relatively small members of each group.
 - Determine level of diversity in each subgroup.
 - Look for trends that are correlated with orbital/physical properties.
 - Use in-situ studies to establish ground "truth" and give us context for the remote observations.

Section 0: Exec. Summary

- Newest part.
- "Needs"
 - Continued access to things like IRTF and Arecibo.
 - Get more access to 6-meter and larger telescopes.
 - Help sky surveys with logistics that would aid small-body science.
 - Get more space-based facilities (e.g. both telescopes that do surveys and s/c that go somewhere).
 - Support analyses of archived data.

Section 3: Matrix

- Recommended at SBAG4 to be added to the chapter.
- Idea: Have a matrix that shows how each kind of characterization and characterization goal matches with various NASA goals (science, planetary defense, human exploration, etc.).
- No-one volunteered, so not yet done.

Section 4: Future Needs

- Section is good right now.
- Section 4.2 is about New Ground-Based Facilities.
 - Do we want to add more discussion of future radar facilities?

Section 5: Summary of Census

- We have 17 sections in here total.
- Five have yet to be written.
- Doesn't take much, just 1 or 2 paragraphs for each.
 - Irregular Satellites
 - IEOs
 - Jovian Trojans
 - Trojans of Other Planets
 - Centaurs / SDOs