Astrophysics Roadmap Overview

Presentation to the Astrophysics Subcommittee

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Astrophysics Roadmap

- **The Astrophysics Division now has**
  - Recent decadal survey
  - 2013 Implementation Plan
- **The Division would find it very useful to have a roadmap**
- **Desirable elements of a roadmap:**
  - Articulate NASA's astrophysics vision looking out 30 years
  - Science-based → identify key science investigations and challenges for the future
  - Identify notional missions & technologies needed to enable the science
  - Developed by a task force of the APS
  - Include community input, including Town Halls
  - Release publicly in mid-December 2013, and present at AAS meeting in January 2014

Astrophysics Roadmap

- **What is the difference between the Implementation Plan and the desired elements of this Astrophysics Roadmap?**
  - **Implementation Plan** describes *response* to 2010 Decadal Survey
  - **Roadmap** *looks forward to and beyond* the 2020 and 2030 Decadal Surveys
    - Visionary document
      - Note that this is *different* from past Astrophysics Roadmaps, which were more like implementation plans
    - Articulates value of continued investment in astrophysics

Astrophysics Roadmap

Presentation to the Astrophysics Subcommittee

Brad Peterson
APS Chair

February 14, 2013

Astrophysics Roadmap Charter - I

APS will develop an Astrophysics Road Map during 2013

- **This Road Map will:**
  - present a compelling, 30-year vision;
  - take the Astrophysics 2011 decadal survey as the starting point and build upon it;
  - be science based, with notional missions;
  - be developed by task force of the Astrophysics Subcommittee (APS);
  - take into account community input solicited Town Hall meetings and other potential calls for input;
  - be delivered to APS.

Astrophysics Roadmap Charter - 2

- **The Roadmap should:**
  - have a compelling, over-arching theme;
  - contain multiple paths (science areas) forward towards a long-range vision;
  - consider cross-cutting opportunities as well as the larger context of ground-based and international astrophysics;
  - be built on science investigations, leading to notional missions that achieve the science;
  - identify challenges (e.g. science challenges, technology challenges….);
  - consider the technology needed to achieve goals;
  - consider a variety of mission sizes to achieve the science;
  - consider way-stations at 10 and 20 years out, as well the full vision at 30 years out.

Astrophysics Roadmap Charter - 3

- **Note that the Roadmap**
  - is *not* a mini-decadal survey with recommendations and priorities;
  - is *not* an implementation plan;
  - *is* a long-range vision document with options, possibilities and visionary futures.

Astrophysics Roadmap Charter - 4

Schedule

- **The Roadmap Task Force shall:**
  - report to the APS Chair at least monthly or more often as the team deems desirable, and to the entire APS at regular meetings;
  - deliver an interim report, with high-level themes, to the APS in time for approval by the APS by August 30, 2013;
  - deliver their final report to the APS in time for approval by the APS, by December 16, 2013;
  - disband once their final report has been approved and accepted by the APS.

Astrophysics Roadmap Discussion

- **Creation of Roadmap Task Force**

- **Approval of charter**