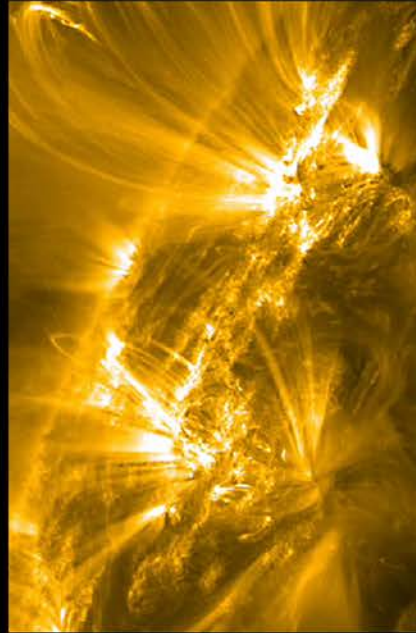




EARTH SCIENCE



HELIOPHYSICS



PLANETARY SCIENCE



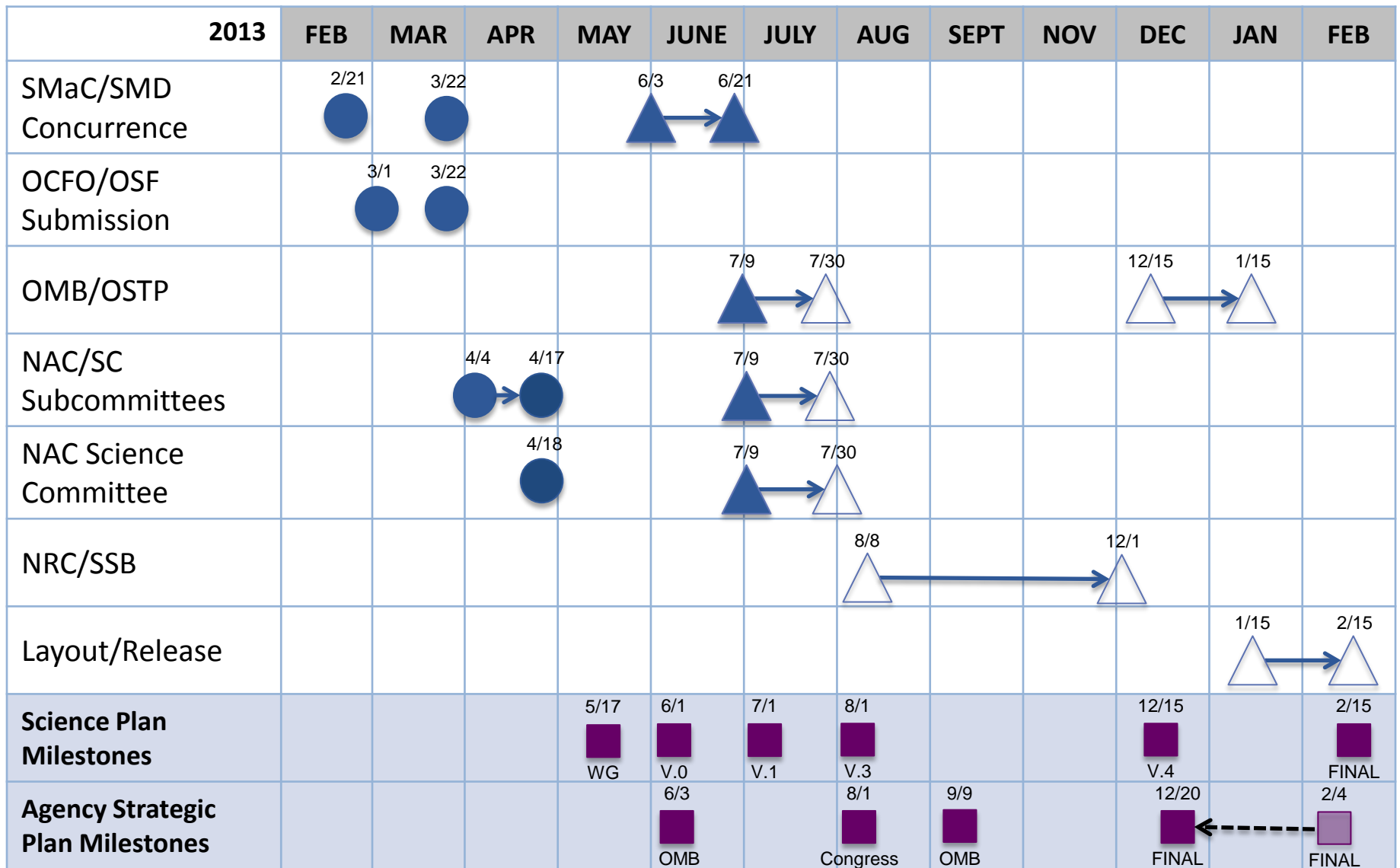
ASTROPHYSICS

## Update 2014 SMD Science Plan

Dan Woods  
Director, Strategic Integration and Management  
July 16, 2013

# SMD 2014 Science Plan Schedule

\* SMD milestones proceed agency milestones



○ Strategic Objectives/Goals

△ Draft of Science Plan

# Challenges Recommended by Subcommittees

- Each subcommittee, including APS, suggested additional SMD Challenges, and these potential challenges were presented to the Senior Management Council on May 2 for consideration.
  - Increasing fidelity of cost estimates and implementation
  - Effective communication and engagement of students and the public/Next Generation Workforce
  - Balancing Risk and Science Payoff
  - Collaboration requires high level of coordination

# Challenges for 2014 Science Plan

- Access to Space
- Mission Cost Estimation and Management
  - Updated to highlight improvements in cost estimation and management as a result of new policies established in 2010
- Technology Development and Demonstration
- Impediments to International Collaboration on Space Missions
- Meeting (Scientific) and Societal Needs
- National Science and Technology Workforce Development
- Unstable Budget Environment

# Astrophysics Chapter Contents

Strategy

**Program Implementation**

Physics of the cosmos

Cosmic Origins

Exoplanet Exploration

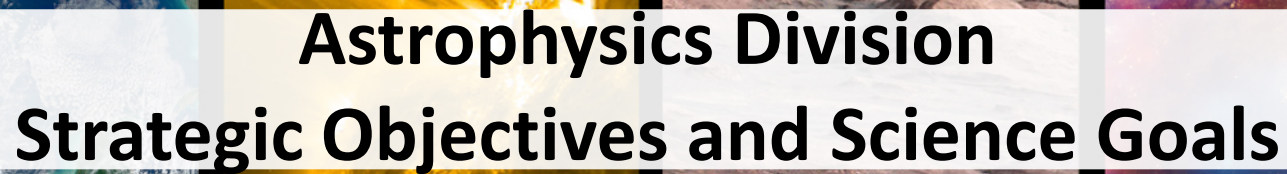
Explorer Program

Astrophysics Research

Current Missions

Missions in Development

Future Missions

A horizontal banner at the top of the slide features a collage of astronomical images, including a blue and white planet, a bright yellow star, and a colorful nebula.

# Astrophysics Division

## Strategic Objectives and Science Goals

**Astrophysics:** Discover how the universe works ~~Unravel the mysteries of the universe~~, explore how it began and evolved, and search for life on planets around other stars.

### Science Goals

- Probe the origin and destiny of our universe, including the nature of black holes, dark energy, dark matter and gravity
- Explore the origin and evolution of the galaxies, stars and planets that make up our universe
- Discover and study planets around other stars, and explore whether they could harbor life

# Next Steps

- Gathering comments on Draft 1.0 from Subcommittees, Science Committee, and OMB/OSTP. Deadline for comments is July 30, 2013.
- Will submit Science Plan v.2 to NRC for review early August