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<th>Steering Group</th>
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<th>Venus</th>
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*Co-Chairs
Origins, Worlds, and Life

Initial Response – Part 1
Sample-management framework details: Final Report of the MSR Science Planning Group 2 (Meyer et al., 2022; Astrobiology)
Next Flagship?
Money Talk
Recommended Program

Total PSD budget FY23–FY32: $41,120M

Table 22.2, Fig 22.1
Level Program

Total PSD budget FY23–FY32: $34,990M

Table 22.2, Fig 22.2
Current Planning Budget

Substantial shortfall in near term

FY2020–2022 Appropriated funds

FY2023–2027 From 2023 President's Budget Request
Other Budget Things

Rec. 22-2, 17-11
Budgetary Decision Rules

**Priority order:**

1. Delay the start of the next Flagship mission;
2. Reduce the number of new Discovery missions to four;
3. Reduce the funding level for Planetary Defense by removing the new-start mission after NEO Surveyor;
4. Reduce the cadence of New Frontiers in the coming decade;
5. Reduce the funding level for LDEP with a late-decade start of Endurance-A;
6. Reduce the funding level for MEP below the Level program;
7. Reduce the number of new Discovery missions to three; and
8. Reduce R&A funding.
Initial Response – Part 2
What is “R&A”?
• Planetary R&A Portfolio: all activities funded under the R&A Budget line
• Planetary Research Program: all research activities funded within the R&A Portfolio and those funded under mission lines
• Openly competed programs: solicitation is publicly announced and available, but may have eligibility requirements

ISFMVs
• A key principle of Internal Scientist Funding Model (ISFM): “ISFM work may also involve contractors and external collaborators”
• More information available online
State of the Profession
Scientific Exploration Strategies?

“NASA should develop scientific exploration strategies, as it has for Mars, in areas of broad scientific importance, e.g., Venus and ocean worlds, that have an increasing number of U.S. mission and international collaboration opportunities”
Technology

Rec. 21-2

2015 PSD Technology Plan available online
Planetary Defense

NEO Surveyor

99942 Apophis

Rec. 18-2, 18-4, 18-6, 18-9
LUNAR SURFACE EXPLORATION

NASA AWARDED CLPS DELIVERY GOALS

PEREGRINE-1 / 2-AB / ASTROBOTIC
- Regolith volatiles composition
- Local radiation environment

1ST NOVA-C / 2-IM & 20C / INTUITIVE MACHINES
- Plume/surface interactions, charged particles near surface
- Lander prop tank gauge test

2ND NOVA-C / PRIME-1 / INTUITIVE MACHINES
- Drilling for volatiles

XL-1 / 19C / MASTEN
- Regolith volatiles composition
- Surface terrain & mineralogy

BLUE GHOST-1 / 19D / FIREFLY
- Characterize Earth’s magnetosphere and Moon’s interior

GRIFFIN-1 / 20A / ASTROBOTIC
- Search for volatiles, below surface and in permanently shadowed regions

VIPER / NASA
- Characterize Earth’s magnetosphere and Moon’s interior

3RD NOVA-C / CP-11 / INTUITIVE MACHINES
- Characterize Earth’s magnetosphere and Moon’s interior

SERIES-2 / CP-12 / DRAPER
- Characterize geophysical properties of the lunar interior as well as electric and magnetic properties

KEY

HUMAN EXPLORATION
SCIENCE
SPACE TECHNOLOGY
CLPS DELIVERY

Rec. 22-10, 22-11
Planned launches:
Artemis I: Aug 29, 2022
Artemis II: 2024
Artemis III: 2025
Artemis IV+: 2027 and beyond
Stay Engaged!

NASEM Committee on Astrobiology and Planetary Sciences (CAPS)
Next meeting: September 28 and 29, 2022 (Irvine, CA/hybrid)

Planetary Science Advisory Committee
Next meeting (TBC): December 5 and 6, 2022

Planetary Science Assessment/Analysis Groups

Astrobiology Research Coordination Networks
Coming Soon in PSD
Targeted Launch: October 2024
Jupiter Orbit Insertion: April 2030
Science Instruments: 9
OSIRIS-REx / APEX
Impact: September 26, 2022,
7:14 pm Eastern
Wind the Clock
EXPLORER
With Us