Mars Program Update

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Planetary Budget Overview for FY14

- Congress passed a budget for Planetary Science of $1.345B
- Budget elements include:
  - Research and Analysis: $130M
  - Near Earth Object Observation: up to $40.5M
  - Discovery: $285M
  - New Frontiers: $258M
  - Mars Exploration: $288M ($65M for Mars Rover 2020)
  - Outer Planets: $159M ($80M Europa)
  - Technology: $146M (including Pu-238 production)
- Instructions included:
  - Pre-formulation and/or formulation activities on the Europa mission including an AO for instrument development supporting the scientific goals of the mission outlined in the Decadal
  - Release the next Discovery AO – next AO Sept 2014
Planetary Science Budget FY15

- President’s proposed FY15 budget includes an additional SMD funding:
  - $15M for competed EPO activities
  - $50M in the Opportunity, Growth, and Security Initiative
- House Appropriations Committee approved the FY2015 Commerce-Justice-Science (CJS) appropriations bill
  - Planetary $1.45B ($302M for MEP; 24 month Discovery cadence)
Extended Missions Senior Review

• Guidelines issued Jan 31, 2014 with comment period
• Final guidelines & budget targets issued Feb 21, 2014
• Proposals due: April 11, 2014
• Review Panel date: ~May 2014
• Results announced: ~June 2014
• 2014 Senior Review missions:
  – Cassini, LRO, Opportunity, Mars Express, Mars Odyssey, MRO and Curiosity
Seeking signs of life: Mars 2020 Rover

Conduct rigorous in situ science

Geologically diverse site of ancient habitability

Coordinated, nested context and fine-scale measurements

Enable the future

Critical ISRU and technology demonstrations required for future Mars exploration

Returnable cache of samples

MSL heritage rover and moderate instrument suite stays within the resource constraints
Planetary Decadal

• “The analysis of carefully selected and well-documented samples from a well-characterized site will provide the highest science return on investment for understanding Mars in the context of solar system evolution and for addressing the question of whether Mars has ever been an abode of life.”

• Mars 2020 clearly addresses the Decadal science at a reduced cost
Mars Calendar of Events

2013
May – November – *Mars As Art* Exhibit at Dulles Airport Gallery
July 31 – Curiosity Day on the Hill
August 6 – One Year Anniversary of Curiosity Landing on Mars
September 6 – LADEE launch from Wallops Flight Facility, VA
October 1 – Close approach of Comet ISON to Mars
October 30 – Mars2020 enters Phase-A
November 18 - Launch of MAVEN from Cape Canaveral, FL
December 6 – InSight enter Phase-C

2014
April 30 – MOMA/NASA enters Phase-C
June/July – Mars2020 instrument selection announcement
August 6 – 2nd Year Anniversary of Curiosity Landing on Mars
Late Summer - Curiosity arrives at Mt. Sharp
September 21 - MAVEN inserted in Mars orbit
October 19 – Comet Siding Spring encounters Mars
Fall – Discussion with Indian Space Research Organization (ISRO) on next steps in their Mars program after successful MOM insertion/operations at Mars
How NASA Space Assets Will Observe Comet Siding Spring

Closest Approach to Mars on October 19, 2014
(Items in yellow successfully observed the comet so far)
For more information, visit: http://mars.nasa.gov/comets/sidingspring

Hubble observed Siding Spring in October 2013, and Jan/Mar 2014

NeoWISE observed the comet in January and will again in July 2014

Mars Reconnaissance Orbiter will attempt observations beginning in October 2014

Swift observed the comet three times between Nov 2013 and February 2014

ESA’s Mars Express may attempt observations in October 2014

Spitzer observed the comet March 2014

Mars Odyssey will attempt observations beginning in October 2014

Opportunity will attempt observations in October 2014

Curiosity will attempt observations in October 2014