MEPAG VM 13

Introduction

R. Aileen Yingst, MEPAG Chair
27 September 2021

Congratulations to Odyssey on its 20th anniversary this year!

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Agenda and Logistics:

- Please mute your phone
- Use chat box on WebEx; moderators will track questions
- Feedback/questions during and after meeting? → MEPAGmeetingqs@jpl.nasa.gov
- Presentations and recording will be online after meeting

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Steering Committee (Chair: R. Aileen Yingst (PSI), appointed June 2019)

- W. Calvin (Univ. Nevada Reno)
- **J. Eigenbrode (GSFC; rotating off)**
- D. Banfield (Cornell)
- J. Filiberto (LPI; IDEA representative)
- S. Hubbard (Stanford University)
- S.S. Johnson (Georgetown University)
- K. Lynch (LPI; IDEA representative)
- J. Johnson (past Chair, JHU/APL)
- M. Meyer (NASA HQ)
- D. Beaty, R. Zurek (JPL)
- J. Bleacher/P. Niles (HEOMD, NASA HQ) Ex Officio members

Goals Committee (D. Banfield, Chair)

- **Goal I** <Life> (J. Stern, GSFC; A. Davila, ARC)
- **Goal II** <Climate> (D. Brain (Univ. Colorado), Claire Newman (Aeolis Research))
- **Goal III** <Geology> (B. Horgan, Purdue, Becky Williams, PSI)
- **Goal IV** <Human Exploration> (J. Bleacher, NASA HQ HEOMD; M. Rucker, P. Niles JSC)
Mars Program Office associates
(Jet Propulsion Laboratory)

Brandi Carrier
Barbara Saltzberg
Sona Hosseini
Updates since VM12

- Call for Applications to the Measurements Definition Team for International Mars Ice Mapper
  - Call released July 26; applications were due August 23.

- MEPAG Steering Committee vacancy
  - Steering Committee released a call for indications of interest; goal is to have an individual in place by the next MEPAG meeting

China's Zhurong Mars rover captured this panorama of the Red Planet. Visible in the foreground are the rover's solar panels and communications equipment. (Image credit: CNSA)
Updates since VM12

- MEPAG administrative updates
  - LPI awarded a contract to provide support to all AGs for running conferences and other administrative duties; timeline for implementation TBD.
  - Closed-captioning – please note the shared link
  - Website is being reworked and updated.
Decadal Survey tentative schedule

- NASA-NASEM negotiate Statement of Task          Done
  https://sites.nationalacademies.org/SSB/SSB_198165
- Web Site opens for White Paper                  Done
- Co-Chairs for DS announced (Canup, Christensen) Done
- Deadline for Science White Paper Submittal      Done
- DS Steering Committee/Panel Chairs organize    Done
  - Sign up at the NAS website for updates of open sessions

- First complete draft of survey report assembled ~10/2021
- Final Report released                           March 2022 (LPSC)
Other Upcoming Mars Activities

- **Geological Society of America Annual Meeting (in-person and virtual)**
  - October 10-13, 2021
- **AMES MCMC Legacy Model Tutorial**
  - November 2-4, 2021
- **Workshop on Low-Cost Mission Concepts for Mars**
  - January 11-13, 2022
- **MEPAG Annual Meeting (in-person?)**
  - Late January, 2022 (TBD)

M2020 Navcam view of rover tracks following its longest autonomous drive, July 1, 2021.
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Backup slides
Mars Exploration Program Analysis Group (MEPAG)

Operational 2001 - 2014
- Odyssey
- MRO
- Mars Express Collaboration
- MAVEN
- ISRO - MOM Mangalyaan

2016
- ESA Trace Gas Orbiter (Electra)

2018
- CNSA Orbiter Tienwen-I
- Perseverance + Ingenuity

2020
- UAE Hope Orbiter

2022
- CNSA Lander + Rover (Zhurong)

Future Planning
ExoMars Lander + Rover in 2023
MEPAG Active Findings

Mars Sample Return
• MEPAG commends the great effort between the Mars Exploration Program (MEP) and the Mars Sample Return (MSR) program to communicate smoothly and effectively, including the MOA between MSR & MEP. MEPAG will continue to assess how well the organization, balancing of duties, and lines of communication are working, as the challenges of coordinating a complex, international program arise.

Mars Exploration Program
• MEPAG encourages NASA to address the important MASWG report requested by the mid-term Decadal review. MEPAG believes that it defines the non-MSR aspects of the MEP and as a standalone report, it should be assessed on its own rather than waiting for the Decadal Survey report. MEPAG is ready to stand up committees that would investigate further the recommendations of this report.
Mars Exploration Program – Mars Ice Mapper
• The community continues to follow the progress of Mars Ice Mapper, and recommends early input from the Mars community as plans develop.

NASA Humans to Mars
• MEPAG is excited about the first stages of discussions regarding humans to Mars but is concerned regarding the lack of input the Mars community has had in the initial formation of science objectives for human exploration of Mars. Science community input into HEOMD architectures at the earliest stages will be crucial for coordination and better understanding of knowledge needed for a successful human mission to Mars. MEPAG intends to continue to publicize and support efforts that seek to broaden community input and open discussion, especially early in the process before any major architectural decisions are made.