



## MEPAG VM 11

### *Introduction*

R. Aileen Yingst, MEPAG Chair

27 January 2021

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*Curiosity spots a dust devil, 20 August 2020  
NASA / JPL-Caltech / SSI*

# Mars Exploration Program Analysis Group (MEPAG)

## Agenda and Logistics:

- Please mute your phone
- Use chat box on WebEx; moderators will track questions
- Feedback/questions during and after meeting?  
→  
[MEPAGmeetings@jpl.nasa.gov](mailto:MEPAGmeetings@jpl.nasa.gov)
- Presentations and recording will be online after meeting
- So sorry there is no break!

| MEPAG VM11 January 27, 2021 |   |                          |         |
|-----------------------------|---|--------------------------|---------|
| Agenda Version 1-27-2021    |   |                          |         |
| PST                         | Topic   | Speaker                  | EST     |
| 10:00 AM                    | MEPAG Update (incl. IRB* key highlights)                        | R. A. Yingst             | 1:00 PM |
| 10:15 AM                    | MEP Status  | E. Ianson<br>M. Meyer    | 1:15 PM |
| 10:50 AM                    | Mars Organization at JPL  | F. Li<br>R. Braun        | 1:50 PM |
| 1:05 AM                     | Mars Sample Return Program (incl. IRB recommendations response) | J. Gramling<br>M. Meyer  | 2:05 PM |
| 1:50 AM                     | NASA Perspectives on future exploration science at Mars         | J. Watzin                | 2:50 PM |
| 2:05 PM                     | Question & Answer Session                                       | All                      | 3:05 PM |
| 2:20 PM                     | DS update   | V. Hamilton              | 3:20 PM |
| 2:50 PM                     | HEO update  | J. Bleacher<br>M. Rucker | 3:50 PM |
| 4:20 PM                     | H2M Conference debrief  | S. Hubbard               | 4:20 PM |
| 4:35 PM                     | Question & Answer Session                                       | All                      | 4:35 PM |
| 4:50 PM                     | Findings/Action Items   | R. A. Yingst             | 4:50 PM |
| 5:00 PM                     | End   |                          | 5:00 PM |

\*IRB – MSR Independent Review Board



## MEPAG Programmatics

### – 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; DEIA representative)
- S. Hubbard (Stanford University)
- S.S. Johnson (Georgetown University) ← Welcome Sarah!!
- Kennda Lynch (DEIA representative) ← Welcome Kennda!!
- 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> (R. Wordsworth, Harvard University (rotating off), D. Brain (Univ. Colorado)
- Goal III <Geology> (B. Horgan, Purdue, Becky Williams, PSI)
- Goal IV <Human Exploration> (J. Bleacher, NASA HQ HEOMD; M. Rucker, P. Niles JSC)

# Mars Exploration Program Analysis Group (MEPAG)



R. Aileen Yingst  
*PSI*  
MEPAG Chair



Jeff Johnson,  
*JHU/APL*  
Past Chair



Wendy Calvin  
*UNR*



Scott  
Hubbard  
*Stanford U.*



Sarah Stewart  
Johnson  
*Georgetown*



Don Banfield  
Goals  
Committee  
*Cornell U. Chair*



Jen Eigenbrode  
*GSFC*



Justin Filiberto  
*LPI*  
*DEIA Rep*



Kennda Lynch  
*LPI*  
*DEIA Rep*

Michael Meyer  
*NASA HQ*



Rich Zurek  
*MPO/JPL*



**NEW  
MEMBER!**



Dave Beaty  
*MSR/JPL*

## Steering Committee

Jake Bleacher  
*NASA HQ*



Paul Niles  
*JSC*



# Mars Program Office associates

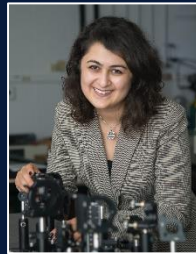
(Jet Propulsion Laboratory)



Brandi Carrier



Barbara Saltzberg



Sona Hosseini



## Independent Review Board (IRB) report: Key recommendations

- The IRB recommends that the MSR program proceed.
- The final report can be found at:  
[https://www.nasa.gov/sites/default/files/atoms/files/nasa\\_esa\\_mars\\_sample\\_return\\_final\\_report\\_small.pdf](https://www.nasa.gov/sites/default/files/atoms/files/nasa_esa_mars_sample_return_final_report_small.pdf)

## IRB report: Key recommendations

- Science
  - Place M2020 under the Mars Sample Return (MSR) Program Director
  - Set up a scientific advisory board for MSR/M2020
- Budget
  - The most-probable Phase A-D cost is \$3.8-\$4.4B, NASA should budget to the higher end of this range
  - Augment budget so that the 2028 launch date is feasible
- Schedule
  - NASA and ESA should replan the baseline MSR program for Sample Return Lander (SRL) and Earth Return Orbiter (ERO) launches in 2028, with the potential of a 2027 ERO launch continuing to be studied for feasibility and potential benefits.
  - Consistent with the absence of viable post-2028 launch opportunities, the PDR milestone should be maintained.



## Decadal Survey tentative schedule


- NASA-NASEM negotiate Statement of Task Done  
[https://sites.nationalacademies.org/SSB/SSB\\_198165](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

- [43<sup>rd</sup> COSPAR Scientific Assembly](#)
  - January 28-February 4
- [UAE's Hope orbital entry](#)
  - February 9
- [China's Tienwen-1 orbital entry](#)
  - February 13
- [Mars 2020 landing](#)
  - February 18
- [IEEE Aerospace Conference](#)
  - March 6-13
- [52<sup>nd</sup> Lunar and Planetary Science Conference](#)
  - March 15-19
- [EGU General Assembly 2021](#)
  - April 19-30

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