

MSR Sample Caching Strategy (Virtual) Workshop

Organized by the Caching Strategy Steering Committee (CSSC)

January 21, 2021 (8 am – 12 pm PST)

Purpose: To seek input on sample caching and sample recovery planning, and to use the workshop results to catalyze improved agreements on decision guidelines that can be implemented by NASA and ESA.

Registration/Indication of Interest: Background information and documents will be distributed prior to the meeting to those who have filled out the indication of interest form at:

<https://forms.gle/gf4rxQ1BjFqdVe9BA>

Workshop Agenda:

Topic	Speaker	Time (PST)
Introduction/Context/Goals of the Workshop	Kminek & Meyer	8:00 AM
Questions		8:10 AM
Geology & Potential Sampling Opportunities (Includes notional mission traverse & timeline)	Gupta	8:20 AM
Questions		8:45 AM
Perseverance operational scenarios & constraints of relevance to caching & retrieval	Farley	8:50 AM
Questions		9:00 AM
SRL/SFR Constraints & Potential Intersections with Perseverance Strategic Planning (“green pathways”)	Spencer/Team	9:05 AM
Questions		9:30 AM
Break		9:45 AM
Draft Decision Guidelines	Meyer	9:55 AM
Discussion: Feedback on Draft Decision Guidelines		10:05 AM
Scientifically-Return Worthy	Kminek	10:25 AM
Discussion: Scientifically-Return Worthy criteria		10:35 AM
Implications of Draft Decision Guidelines (e.g. duplicate sampling, number of caches, key decision points).	Haldemann	10:55 AM
Discussion		11:05 AM
Concluding the workshop, next steps	Meyer & Kminek	11:25 AM

Connection Info:

1) Join Meeting:

<https://jpl.webex.com/jpl/j.php?MTID=m33b4454d982e90291f1ae351e041ade2>

- Meeting number (access code): 199 138 6953
- Meeting password: MSR

2) To join audio – you can stream the sound through your computer speakers. Or (recommended) you can listen in via phone:

- by having WebEx call you; or
- call in: +1-510-210-8882 USA Toll or [Global call-in numbers](#). Use the Meeting number (access code): 199 138 6953

Other Workshop Information:

Assumptions:

- Draft caching strategies have been proposed by the MSR Program, and reviewed by Mars 2020 leadership and the Caching Strategy Steering Committee, in advance of the workshop
- Discussion topics within scope for the workshop:
 - Criteria for designating a cache 'Scientifically Return Worthy'
 - Approach to taking duplicate samples
 - What/when are the decision points for caching/depot formation
 - Consider # of caches
- Not within scope for the workshop:
 - Debate which samples should be taken
 - Debate which specific samples must be in any specific cache
 - Debate rover trafficability and landing site criteria
 - Be overly prescriptive
- Decision guidelines will be reviewed on at least an annual basis and updated as necessary

Desired Workshop Outcomes:

1. Inputs to a broadly considered MSR sample caching strategy that are robust and flexible. The strategy adopted should maximize the science for Mars exploration.
2. The science community is informed, engaged, and able to participate in the process.
3. Community feedback is documented and used to develop an advisory report to NASA/ESA within approximately one month of the workshop.

Workshop Process Notes:

- To be carried out via a webex session, which will be hosted by Dr. Brandi Carrier (bcarrier@jpl.nasa.gov).
 - The webex session will be recorded to facilitate review by the CSSC as they incorporate feedback
- As with all virtual workshops of this sort, we will not be able to be able to hear oral comments from everybody. We strongly encourage use of the chat window, which has

two beneficial attributes: 1) Everybody can contribute, 2) It creates a written record, and in the participants' own words. The moderators will try to call on a subset of the chat commenters for oral discussion, depending on time available and significance of the topics raised.

- Some documents will be circulated in advance, so as to minimize the time spent presenting basic facts.
- After the webex session ends (and the chat window is no longer open), post-workshop comment can be submitted via a Google Form (link to be provided at the meeting).
- Post-workshop processing will be managed by the CSSC (Caching Strategy Steering Committee), chaired by Gerhard Kminek (ESA) and Michael Meyer (NASA).