Mars Exploration Science Monthly Newsletter A publication of the Mars Program Office and the Mars Exploration Program Analysis Group (MEPAG) September 2022

Mars Science News

Mars 2020/Mars Sample Return (MSR) Sample Depot Science Community Workshop—September 28th and 30th, 2022

As the Perseverance rover explores the Jezero Delta Front and continues to enhance its on-board sample collection, NASA and ESA are further advancing their planning for the retrieval and transportation of the samples to Earth.

Mission risk managers have determined that the probability of success is maximized if the collected samples are divided into two subsets, with "success" defined as the delivery of one of those two groups of samples to Earth.

The strategy is based upon Perseverance forming an initial depot within Jezero Crater within the rover's qualified lifetime (1.5 Mars years), using one member of each of the paired samples it has collected. The second of each of the paired samples would then be retained on board, and this group of on-board samples would be augmented by additional future samples, potentially over multiple years (depending on Perseverance's future state of health).

Accordingly, a depot of samples acquired by the Perseverance Rover in Jezero Crater needs to be established in the near future for risk management and other strategic reasons along the Jezero Delta Front. The goal of this workshop is to inform and solicit input from the science community on the potential for the samples in this proposed depot to sufficiently satisfy Mars Sample Return science objectives and thus, constitute a scientifically return-worthy (SRW) sample set.

The output from this workshop will be considered as critical input for the final decision on depot placement. The decision about whether to proceed with depot formation along the Jezero Delta Front is expected to be made shortly after this workshop, so this will be the primary opportunity for the science community to weigh in on this topic.

The M2020/MSR Sample Depot Science Community Workshop will take place virtually on September 28th and 30th from 8am-12pm PDT, with the intervening Thursday being an "off" day to allow the participants to consider and develop their thoughts and feedback. The MSR Campaign Science Group (MCSG) is the primary organizer of this meeting. The 2nd announcement is available <u>here</u>. Further information, including a Pre-Workshop Participant Information Package will be posted here approximately one week before the workshop.

Near-term Due Dates (next three months)

Due	Conference	
Oct 7	Workshop on EDIA for Leaders in Planetary Science Indication of Interest Deadline	
Oct 13	Extraterrestrial Materials Analysis Group (ExMAG) Fall Meeting 2022 Registration Deadline	

Upcoming Conferences

- Note that for civil servants and those under contract with NASA, foreign and NASA-sponsored conferences generally
 need to be forecasted via NCTS. Forecasting to NCTS is usually due 60 days in advance for domestic meetings. If you
 are unsure whether an event is a conference or not, or when the deadline may be, please consult with your NASA
 Center conference forecasting/travel unit.
- The situation for COVID-19 continues to evolve, so here are conferences with both in-person and virtual formats. It is advisable to check with the websites of the conference and confirm with the organization of any changes.

	2022						
	September 18-23, 2022	Europlanet Science Congress (EPSC)					
	Granada, Spain	https://www.europlanet-society.org/european-planetary-science-congress/					
	September 22-23 , 2022	Maria Mitchell Women of Science (STEM) Symposium					
	Wellesley, MA, USA	http://www.mmwss.org					
NEW	September 28,30 2022 Virtual	Mars 2020/MSR Sample Depot Science Community Workshop					
INLOV		https://mepag.jpl.nasa.gov/announcements/Depot_Caching_Workshop_2nd_Announcement.pdf					
	October 2-4, 2022	54 th Annual Meeting of the Division for Planetary Sciences					
	London, Ontario, Can	https://aas.org/meetings/dps54/					
NEW	October 9-12, 2022 Denver, CO - Hybrid	Goelogical Society of America Connects 2022					
INLOV		https://community.geosociety.org/gsa2022/home					
NEW	October 12-13, 2022 Virtual	Extraterrestrial Materials Analysis Group (ExMAG) Fall Meeting 2022					
INEVV		https://www.lpi.usra.edu/exmag/meetings/exmagfall2022/					
NEW	October 17-21, 2022 Virtual	SMD Bridge Program Workshop					
INEVV		https://www.hou.usra.edu/meetings/smdfall2022/					
NEW	October 18-19, 2022 Virtual	Planetary Protection in Practice					
INLVV		https://www.hou.usra.edu/meetings/planetprotection2022/abstracts/					
	November 2-4, 2022 Houston, TX	Lunar Polar Volatiles Conference					
		https://www.hou.usra.edu/meetings/lunarpolar2022/					
	November 7-13, 2022	Forming and Exploring Habitable Worlds					
	Edinburgh, Scotland	https://www.habitableworlds.co.uk					
	November 8-10, 2022 Frejus, France	Planetary Formation and Exoplanets with the ELT					
		https://elt-exoplanets.sciencesconf.org					
NIEVA	November 30- December 2, 2022 Virtual	Workshop on EDIA for Leaders in Planetary Science					
NEW		https://edialps.psi.edu/					
	December 12-16, 2022	AGU Fall Meeting 2022					
	Hybrid	https://www.agu.org/Fall-Meeting					
	December 12-16, 2022	AGU Fall Meeting 2022 https://www.agu.org/Fall-Meeting					

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Seasons on Mars

	MY36	MY37	MY38	MY39
Start of Northern Spring / L _s 0	02/07/2021	12/26/2022	11/12/2024	09/30/2026
Start of Northern Summer / L _s 90	08/25/2021	07/13/2023	05/29/2025	04/17/2027
Start of Northern Autumn / L _s 180	02/24/2022	01/12/2024	11/29/2025	10/17/2027
Start of Northern Winter / L _s 270	07/21/2022	06/07/2024	04/25/2026	03/12/2028

U.S. Federal holidays to consider when scheduling conferences/workshops/meetings



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Please send Mars Community Announcements and calendar items for inclusion in next month's newsletter to:

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This newsletter (and all previous months') is also posted on the MEPAG website: http://mepag.jpl.nasa.gov

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To be added to this list and receive this monthly newsletter and other Mars Science announcements, or to update your MEPAG directory information (which contains the email list used for sending out this newsletter), send an email to mepag-signup@ipl.nasa.gov from the email account you'd like added, with your full name and institution.