

Mars Exploration Science Monthly Newsletter

A publication of the Mars Program Office and the Mars Exploration Program Analysis Group (MEPAG)

June 2019

Mars Science News

Ninth International Conference on Mars – Program and 3rd Announcement posted

The Ninth International Conference on Mars will be held at the California Institute of Technology (Caltech) in Pasadena, California, beginning the morning of Monday, July 22, and ending after a full day on Thursday, July 25. (It will be followed on Friday by [MEPAG Meeting 37](#), see below.) The 3rd announcement, which includes the program and Policies and Guidance for attendees, has been posted at <https://www.hou.usra.edu/meetings/ninthmars2019/>. We draw your attention to a few upcoming deadlines:

- If you need to forecast conference travel, please do so ASAP: **NCTS# 31488-19**.
- Hotel room blocks are open for July 21-26 (nights), through **June 14** (Hotel Constance) and **June 21** (Sheraton and Westin), or until they fill, whichever occurs first. Booking links are provided on the Conference [Logistics page](#).
- The Registration Deadline is **July 11**. Although on-site registration will be offered, we strongly encourage advance registration to help with planning and badge printing.

1st Informational Circular for MEPAG Meeting 37 (following 9th Mars Conference) has been posted

The next face-to-face MEPAG meeting (#37) will be held at the California Institute of Technology in Pasadena, CA on Friday, July 26, 8:30-1:00pm PDT, following the Ninth International Conference on Mars (above). The 1st Informational Circular has been posted at <https://mepag.jpl.nasa.gov/meetings.cfm?expand=m37> and contains a topical agenda. The 2nd Informational Circular, containing an updated agenda and webcast connection information, will be posted about a month before the meeting.

- Note that the MEPAG meeting is separate from the Ninth International Conference on Mars and should be forecast separately for NASA conference forecasting purposes: **NCTS# 38468-19** for the MEPAG meeting.
- If you will attend in-person, please register at <https://docs.google.com/forms/d/e/1FAIpQLSeSC4QLzLtu42-qbgMCyjyyNPdNRd2Mbtumt6ZWdAg6WWUhw/viewform?vc=0&c=0&w=1> by **June 28**. (If you indicated attendance to the MEPAG meeting in your 9th Mars Conference registration, we will use that information and you do not need to re-register.) As for the 9th Mars Conference, on-site registration will be offered, but we strongly encourage advance registration to help with planning and badge printing.

Ice and Climate Evolution Science Analysis Group (ICE-SAG) Pre-print Report available

In October, 2018, the Mars Exploration Program Analysis Group (MEPAG) Executive Committee chartered the Ice and Climate Science Analysis Group (ICE-SAG) as part of their Mars community preparations for the next Planetary Science Decadal Survey. The main aim of this SAG was to identify and prioritize fundamental science questions related to the recent and ongoing evolution of Mars volatiles and climate, and to explore new mission approaches that could address these high-priority science questions during the coming decade (2023–2032). The MEPAG Executive Committee & ICE-SAG members hope the ICE-SAG report documents will be useful resources for the community:

- Although final cleanup of the report has not yet been completed, a Pre-print version of the ICE-SAG final report has been posted, so as to provide the community with access to the report content before the end of May: <https://mepag.jpl.nasa.gov/reports.cfm?expand=topical>. In this Pre-print, the report content is overall set, but some formatting/cleanup is still needed (including links fixed between sections) and Appendix C will be added. The final and clean document is expected to be posted by end of June, and will be announced in the Mars Science newsletter.
- Also posted is Supplemental Materials for the ICE-SAG report, which outlines the concept studies undertaken to support ICE-SAG. These studies included exploration of technical challenges and some architectural trades.

MEPAG Virtual Meeting (VM5) was held June 6, 2019, presentations will be posted

Presentations from the 5th MEPAG Virtual Meeting (VM5) will be posted in the near-future at <https://mepag.jpl.nasa.gov/meetings.cfm?expand=vm5>, along with a summary of meeting discussion. This meeting was held Thursday, June 6th, 2019, and included an update from NASA HQ, a final report from the Ice and Climate Evolution Science Analysis Group (ICE-SAG), information about the upcoming Ninth International Conference on Mars and subsequent MEPAG Meeting 37 (July 22-25 and July 26, respectively), and reports about other Mars-relevant meetings. Additionally, we formally welcomed the incoming MEPAG Chair, Dr. R. Aileen Yingst (PSI), and thanked the outgoing Chair, Dr. Jeffrey Johnson (JHU/APL), for his service.

New MEPAG Goal IV Representative

Michelle Rucker (NASA JSC) is the new MEPAG Goal IV representative, joining Jacob Bleacher (NASA HQ HEOMD) and filling the role previously held by Ryan Whitley (NASA JSC). We thank Ryan for his service, and welcome Michelle! Michelle joined NASA in the aftermath of the space shuttle Challenger accident, supporting the investigation by conducting booster material test and analyses. Michelle has since participated in a range of exciting projects, such as: International Space Station (ISS) environmental control and life support system development, operating a two-stage light gas gun hypervelocity impact research laboratory, supervising spacesuit and Extravehicular Activity (EVA) tools projects, ISS exercise equipment system engineering, and Orion crew exploration vehicle test and verification. She currently leads the Mars Integration Group within NASA's Human Exploration and Operations (HEO) Mission Directorate, developing crewed Mars mission concepts.

The current list of Goals Reps can be seen at <https://mepag.jpl.nasa.gov/about.cfm>.

New Principal Investigator (PI) Resources available, including colloquium by NASA SMD AA Dr. Zurbuchen on "Writing Successful Mission Proposals"

On Wednesday, June 5, 2019, Dr. Thomas Zurbuchen, Associate Administrator for the NASA Science Mission Directorate, gave a colloquium at the University of Colorado Boulder campus, on the topic of "Writing Successful Mission Proposals: Observations from NASA". This talk was live-streamed and recorded. Copies of the slides are currently available on <https://science.nasa.gov/researchers/new-pi-resources> and audio from the event will also be posted there.

SMD plans to develop further information sessions and workshops for prospective mission principal investigators, including more overview sessions at upcoming science conferences and hands-on workshops targeted towards people who are in the process of developing their first proposals. To subscribe to the mailing list to learn about these opportunities, please visit <https://lists.hq.nasa.gov/mailman/listinfo/hq-smdpi-workshop-outreach>.

Many additional resources for prospective PIs are available at [this webpage](#), including resources for planning and writing grant proposals, mission management, professional development, and NASA's policies on harassment and discrimination.

New NASA/SSERVI Analogs Focus Group and Virtual Seminar Series

The NASA/SSERVI Analogs Focus Group is running a new virtual seminar series focused on terrestrial analog research. These seminars will be ~20 minutes in length (with 10 minutes for Q&A) and will focus on a variety of topics including, but not limited to, science, exploration, logistics, funding opportunities, etc. We may also have discussions on topics such as selecting the optimal field site, infusing science & exploration results into mission architectures, etc.

Seminars will typically be the first Friday of January, April, July, and October each year at 9 am PT / noon ET. To sign up for the Analogs Focus Group listserv and receive seminar information, please email jennifer.heldmann@nasa.gov.

Applications are open for Impact Cratering Short Course and Field School: Sep 28 – Oct 5

The [Centre for Planetary Science and Exploration](#) and [Canadian Lunar Research Network](#) are pleased to be running the Impact Cratering Short Course and Field School September 28 to October 5 2019. Based within the 1.85 billion year old, 200 km diameter Sudbury impact structure, this course will introduce students and post-doctoral fellows to the processes and products of impact cratering on Earth and throughout the Solar System. Details about the course and how to register are here: https://cpsx.uwo.ca/training/graduate_student/courses/planetasc_9604_sudbury_short_course.html Questions can be sent to Dr. Gordon "Oz" Osinski: gosinski@uwo.ca.

Please note: The Solar System Exploration Research Virtual Institute will provide funding support for a number of U.S. students. Details are provided on the above website. The deadline for these applications is **June 21, 2019**.

Mars-relevant Special Issues Welcoming Paper Submissions

- The journal *Life* (ISSN 2075-1729) is currently running a special issue titled "Planetary Exploration of Habitable Environments." Prof. Dr. Dirk Schulze-Makuch, Technical University of Berlin (Germany), and Dr. Alberto G. Fairén, Centro de Astrobiología (Madrid, Spain) and Cornell University (Ithaca, N.Y.), are serving as guest editors for this issue. For more information:

https://www.mdpi.com/si/life/Planetary_Exploration

Submission deadline: 15 October 2019

Near-term Due Dates (next three months)

Due	Project
June 14	NASA Exploration Science Forum 2019 - International Registration Deadline
	The Pluto System After New Horizons (PSANH) - Early Registration Deadline
	Royal Astronomical Society 2019 National Astronomy Meeting - Registration Deadline
June 21	LunGradCon 2019 Abstract Deadline
June 22	2019 Astrobiology Science Conference (AbSciCon) - Registration Deadline
	European Week of Astronomy and Space Science (EWASS 2019) - Registration Deadline
June 24	10th Planetary Crater Consortium - Abstract Deadline
June 25	2019 GSA Annual Meeting - Abstract Deadline
	16th Annual Meeting of the Asia Oceania Geosciences Society (AOGS) - Late Registration Deadline
	70th International Astronautical Congress (IAC) - Registration Deadline
August 10	Venera-D Landing Sites and Cloud Layer Habitability workshop – Abstract Deadline

UPCOMING CONFERENCES

A note about "conferences" and this calendar of events

Missing NCTS#s (and forecasting deadline, if anomalous) can be sent to Barbara Saltzberg (Barbara.A.Saltzberg@jpl.nasa.gov).

If no deadline is noted: it is usually 60 days in advance for domestic meetings — sometimes further in advance if the conference is "Heavily Attended."

Please do not assume our noting of NCTS# is complete. If you are unsure whether an event is a conference or not, or when the forecasting deadline may be, please consult with your NASA Center conference forecasting/travel unit.

Second Quarter, 2019		
June 11-14, 2019 Golden, CO, USA	10th Joint Meeting of the Space Resources Roundtable (SRR) and the Planetary and Terrestrial Mining Sciences Symposium (PTMSS) , NCTS 37406-19 https://www.csmospace.com/events/srr/	
June 12-14, 2019 Flagstaff, AZ, USA	Annual Meeting of Planetary Geologic Mappers https://www.hou.usra.edu/meetings/pgm2019/	
June 18-19, 2019 Coimbra, Portugal	International Meeting on Paleoclimate: Changes and Adaptation <i>* Research Topic T1: Paleoclimates in the Solar System: external forcing and divergent evolutions</i> https://paleoclimate2019.wixsite.com/paleoclimate2019	
June 18-20, 2019 Flagstaff, AZ, USA	4th Planetary Data Workshop , NCTS 37520-19 https://www.hou.usra.edu/meetings/planetdata2019/	
June 20-22, 2019 Tucson, AZ USA	Building the NASA Citizen Science Community Workshop , NCTS 38030-19 https://meeting.psi.edu/citizen-science-conference-agenda-and-schedule/	
June 24-25, 2019 Washington DC, USA	21st Meeting of the NASA Small Bodies Assessment Group https://www.lpi.usra.edu/sbag/	
June 24-28, 2019 Bellevue, WA, USA	2019 Astrobiology Science Conference (AbSciCon) , NCTS 36103-19 https://connect.agu.org/abscicon/home	
June 24-28, 2019 Lyon, France	European Week of Astronomy and Space Science (EWASS 2019) http://eas.unige.ch/EWASS2019/call.jsp	
June 27-28, 2019 Greenbelt, MD, USA	The Planetary CubeSats Symposium https://cubesats.gsfc.nasa.gov/symposium.php	
June 30-July 4, 2019 Lancashire, England	Royal Astronomical Society 2019 National Astronomy Meeting https://nam2019.org/	

Third Quarter, 2019		
	July 7-12, 2019 Sapporo, Japan	82nd Annual Meeting of The Meteoritical Society (MetSoc 2019) https://www.metsoc19-sapporo.com/
	July 8-12, 2019 Oxford, United Kingdom	International Planetary Probe Workshop 2019 , NCTS 36747-19 https://ippw2019.uk/
	July 14-18, 2019 Laurel, MD, USA	The Pluto System After New Horizons (PSANH) , NCTS 31320-19 https://www.hou.usra.edu/meetings/plutosystem2019/
	July 15-17, 2019 Columbia, MD, USA	Lunar ISRU 2019 - Developing a New Space Economy through Lunar Resources and Their Utilization https://www.hou.usra.edu/meetings/lunarisru2019/
NEW	July 22, 2019 Mountain View, CA	LunGradCon 2019 http://impact.colorado.edu/lungradcon/2019/
	July 22-25, 2019 Pasadena, CA, USA	Ninth International Conference on Mars , NCTS 31488-19 https://www.hou.usra.edu/meetings/ninthmars2019/
	July 23-25, 2019 Moffett Field, CA, USA	NASA Exploration Science Forum 2019 , NCTS 36800-19 https://nesf2019.arc.nasa.gov/
	July 26, 2019 Pasadena, CA USA	MEPAG Meeting https://mepag.jpl.nasa.gov/meetings.cfm?expand=m37
	July 28-August 2, 2019 Singapore	16th Annual Meeting of the Asia Oceania Geosciences Society (AOGS) , NCTS 36817-19 http://www.asiaoceania.org/aogs2019/public.asp?page=home.htm
	August 7-9, 2019 Flagstaff, AZ, USA	10th Planetary Crater Consortium www.planetarycraterconsortium.nau.edu/
NEW	August 20-21, 2019 Boulder, CO	OPAG Meeting https://www.lpi.usra.edu/opag/
	September 8-12, 2019 Big Sky, MT, USA	The First Billion Years: Habitability: Producing Conditions Conducive to Life , NCTS 28519-20 https://www.hou.usra.edu/meetings/habitability2019/
	September 10-12, 2019 Irvine, CA, USA	NASEM's Committee on Astrobiology and Planetary Science (CAPS) http://sites.nationalacademies.org/SSB/SSB_067577#Meetings_and_Events
	September 10-13, 2019 Rome, Italy	International Association of Sedimentologists (IAS) <i>* Session 7.14 Planetary Sedimentary Geology: from remote sensing and in-situ</i> http://iasroma2019.org/
	September 15-20, 2019 Geneva, Switzerland	Joint Meeting: 51st Meeting of the AAS Division for Planetary Sciences (DPS), joint with the European Planetary Science Congress (EPSC) , NCTS 37080-19 https://www.epsc-dps2019.eu/
	September 22-25, 2019 Phoenix, AZ, USA	2019 GSA Annual Meeting , NCTS 37526-19 https://www.geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2019.aspx
	September 23-25, 2019 Madrid, Spain	Titan after Cassini-Huygens Workshop , NCTS 37783-19 https://www.cosmos.esa.int/web/titan-after-cassini-huygens/home
	September 30-October 3, 2019 Brasilia, Brazil	Large Meteorite Impacts and Planetary Evolution VI (LMI VI) https://www.hou.usra.edu/meetings/lmi2019/

Fourth Quarter, 2019		
	October 21-25, 2019 Washington, DC, USA	70th International Astronautical Congress (IAC) , NCTS 36775-20 https://www.iac2019.org/
NEW	October 2-5, 2019 Moscow, Russia	Venera-D Landing Sites and Cloud Layer Habitability Workshop https://www.hou.usra.edu/meetings/venera-d2019/
	October 28-30, 2019 Saratoga Springs, NY, USA	2nd RPI Space Imaging Workshop http://seal.rpi.edu/workshop/2019
	October 28-30, 2019 Washington, DC USA	Lunar Exploration Analysis Group (LEAG) meeting https://www.lpi.usra.edu/leag/

Fourth Quarter, 2019 continued		
	November 4-8, 2019 Herzliya, Israel	The 4th COSPAR Symposium: Small Satellites for Sustainable Science and Development , NCTS 37773-20 http://www.cospar2019.org/
	November 5-8, 2019 Carlsbad, NM, USA	Mars Extant Life: What's Next? https://www.hou.usra.edu/meetings/lifeonmars2019/
	November 5-7, 2019 Tucson, AZ, USA	Asteroid Science in the Age of Hayabusa 22 and OSIRIS-REX https://corex.lpl.arizona.edu/international-workshop
	December 9-12, 2019 Sugar Land, TX, USA	First International Orbital Debris Conference (IOC) https://www.hou.usra.edu/meetings/orbitaldebris2019/
	December 9-13, 2019 San Francisco, CA, USA	2019 AGU Fall Meeting , NCTS 37409-20 https://fallmeeting.agu.org/2018/future-meetings/

Seasons on Mars

	MY34	MY35	MY36
Start of Northern Spring / L. 0	03/23/2019	02/07/2021	12/26/2022
Start of Northern Summer / L. 90	10/08/2019	08/25/2021	07/13/2023
Start of Northern Autumn / L. 180	04/08/2020	02/24/2022	01/24/2024
Start of Northern Winter / L. 270	09/02/2020	07/21/2022	06/07/2024

Special holidays to consider when scheduling conferences/workshops/meetings

Good Friday	4/19/2019	4/10/20	4/2/2021	04/15/2022
Rosh Hashanah	9/30/2019	9/19/20	9/7/2021	09/26/2022
Yom Kippur	10/09/2019	9/28/20	9/16/2021	10/05/2022
(Note that Jewish holidays start at sundown the previous evening)				
Thanksgiving Day, Canada	10/14/2019	10/12/20	10/11/2021	10/10/2022
Thanksgiving Day, U.S.	11/28/2019	11/26/20	11/25/2021	11/24/2022
Christmas Day	12/25/2019	12/25/20	12/25/2021	12/25/2022

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Please send Mars Community Announcement and calendar items for inclusion in next month's newsletter to: Barbara Saltzberg at Barbara.a.Saltzberg@jpl.nasa.gov

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

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