

# Mars Exploration Science Monthly Newsletter

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

November 2018

## Mars Science News

### **MEPAG Executive Committee Membership**

The MEPAG Executive Committee has expanded. We welcome Justin Filiberto (LPI) and Barbara Cohen (NASA GSFC) as new members. A listing of current membership is available at: <https://mepag.jpl.nasa.gov/about.cfm>.

### **MEPAG Virtual Meeting 3 (VM#3): Meeting Summary Now Available:**

A summary of the third MEPAG Virtual Meeting from September 13, 2018 is now available on the MEPAG website: [https://mepag.jpl.nasa.gov/meeting/2018-09/mepag\\_vm3\\_notes\\_180913\\_final.pdf](https://mepag.jpl.nasa.gov/meeting/2018-09/mepag_vm3_notes_180913_final.pdf)

### **AGU Town Hall: Updates and Current Status of Planning for Potential Mars Sample Return**

Date: Friday, December 14, 2018

Time: 12:30-1:30pm

Location: Marriott Marquis – Capitol/Congress Ballroom

There will be a lunch time Town Hall on the topic of possible Mars Sample Return (MSR) at the AGU Fall Meeting. This Town Hall will include updates on the status of on-going science and engineering planning that is being carried out jointly by teams led by NASA and ESA. This will be followed by a focused discussion on certain future science-related planning questions. There will be time for feedback, and Q&A will be encouraged.

### **4th Mars 2020 Rover Landing Site Workshop: Meeting Summary**

Meeting Co-Chairs, John Grant and Matt Golombek, have summarized the results of the 4<sup>th</sup> Mars 2020 Rover Landing Site Workshop via (1) Quad Charts and (2) a Final Letter to NASA Headquarters. Histograms showing the workshop voting results have also been provided. These documents are posted on <https://marsnext.jpl.nasa.gov/>.

The Quad Charts show the pros and cons of each potential landing site and confirm that all four sites represent diverse and potentially high value exploration targets. The Final Letter to NASA Headquarters describes the agenda of the meeting, the criteria used for selection voting, and the summary assessment plots generated on the final day of the workshop. The histograms illustrate workshop participant scoring at each site. The Jezero crater site scored most highly for nearly all of the voting criteria with Midway and NE Syrtis not far behind. The results from this workshop provide one of several key inputs for the final site selection by the NASA Science Mission Directorate (SMD) Associate Administrator.

Presentations given at the meeting are also available on the meeting website: [https://marsnext.jpl.nasa.gov/workshops/wkshp\\_2018\\_10.cfm](https://marsnext.jpl.nasa.gov/workshops/wkshp_2018_10.cfm).

## Mars Extant Life: What's Next? Conference: Abstract & Student Travel Grants

Deadline: November 15, 2018

Conference: January 29 – February 1, 2019; Carlsbad, NM, USA; <https://www.hou.usra.edu/meetings/lifeonmars2019/>

This conference will focus on understanding and discussing strategies for exploring for extant life on Mars. Abstracts that focus on environmental niches for hypothesized Mars extant lifeforms, measuring signatures of present life as we know it (or as we don't know it), instrument and mission concepts related to the search for extant life, strategies for life detection that account for potential forward contamination, and other related topics are being solicited. See the call for abstracts on the conference website for more details (<https://www.hou.usra.edu/meetings/lifeonmars2019/abstracts/>).

The Mars Program Office is offering up to three student travel grants to undergraduate and graduate students with Mars-related research interests, who are US citizens or legal residents. The travel grant application is due on the abstract deadline (November 15) and is available on the MEPAG web site: <https://mepag.jpl.nasa.gov/student.cfm?expand=student>. Questions about the travel grant should be directed to Kelly Perry ([Kelly.L.Perry@jpl.nasa.gov](mailto:Kelly.L.Perry@jpl.nasa.gov)).

## Upcoming Mars special issues, welcoming paper submissions

Planetary and Space Science has approved a special issue on “Amazonian Mars: Climate & Processes,” with submissions accepted November 1, 2018 to February 28, 2019. Papers that describe the climate history as well as geological and environmental processes that pertain to the Amazonian period of Mars' history which includes the present-day are solicited. The Amazonian period encompasses the most recent 3 billion years of Mars history, which has strongly shaped the evolution of the surface that we observe today. This special issue was prompted by the recent Mars Workshop on Amazonian and Present-day Climate; submissions are welcome from the community and the lead guest editor is John Moores (York University). More information is available at: <https://www.journals.elsevier.com/planetary-and-space-science/call-for-papers/special-issue-on-amazonian-mars-climate-processes>

The joint JGR special issue, “Studies of the 2018/Mars Year 34 Planet-Encircling Dust Storm”, is accepting submissions until March 1, 2019. Papers pertaining to observations and atmospheric modelling of this particular storm, its influence on the atmosphere and surface of Mars and the physics of Martian dust storms are encouraged. Submissions are sought from mission and instrument teams and the broader scientific community. The editor is Scott Guzewich. Papers can be submitted through the GRL, JGR-Planets or JGR-Space Physics submission websites shown below:

[https://grl-submit.agu.org/cgi-bin/main.plex?form\\_type=home](https://grl-submit.agu.org/cgi-bin/main.plex?form_type=home)

[https://jgr-planets-submit.agu.org/cgi-bin/main.plex?form\\_type=home](https://jgr-planets-submit.agu.org/cgi-bin/main.plex?form_type=home)

[https://jgr-spacephysics-submit.agu.org/cgi-bin/main.plex?form\\_type=home](https://jgr-spacephysics-submit.agu.org/cgi-bin/main.plex?form_type=home)

## Near-term Due Dates (next three months)

Due	Project
November 1	Planetary & Space Sciences Special issue on “Amazonian Mars: Climate & Processes, Submission Begins
November 2	Annual Meeting of the Lunar Exploration Analysis Group, Registration Deadline
November 5	The Space Astrophysics Landscape for the 2020s and Beyond, Indication of Interest Deadline
November 7	American Geophysical Union Fall Meeting, Registration Deadline
November 8	233rd Meeting of the American Astronomical Society, Registration Deadline
November 15	Mars Extant Life: What's Next?, Abstract Deadline, Student Application for MPO Travel Grant Deadline
November 16	50th Lunar and Planetary Science Conference, Indication of Interest Deadline
November 20	2nd International Conference on Astronomy, Astrophysics & Astrobiology, Early Registration Deadline

## Near-term Due Dates (next three months) cont.

Due	Project
November 21	<b>Women in Space</b> , Abstract Deadline
November 30	<b>IEEE Aerospace Conference</b> , Early Registration Deadline
November 30	<b>2019 IAA Planetary Defense Conference</b> , Abstract Deadline
December 1	<b>Life3E: Search for Life from Early Earth to Exoplanets</b> , Abstract Deadline for Contributed Talks
December 5	<b>233rd Meeting of the American Astronomical Society</b> , Late Abstract Deadline (Posters & iPosters Only)
December 6	<b>2nd International Conference on Astronomy, Astrophysics &amp; Astrobiology</b> , Registration Deadline
December 10	<b>233rd Meeting of the American Astronomical Society</b> , Late Registration Deadline
December 31	<b>Mars Extant Life: What's Next?</b> , Registration Deadline
December 31	<b>Workshop on In-Situ Exploration of the Ice Giants</b> , Abstract Deadline
January 8	<b>50th Lunar and Planetary Science Conference</b> , Abstract Deadline
January 10	<b>Life3E: Search for Life from Early Earth to Exoplanets</b> , Abstract Deadline for Posters
January 18	<b>Mars Extant Life: What's Next?</b> Late Registration Deadline
January 24	<b>IEEE Aerospace Conference</b> , Registration Deadline
January 31	<b>Workshop on In-Situ Exploration of the Ice Giants</b> , Registration Deadline

## Upcoming Conferences and Workshops

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](mailto: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.

## Fourth Quarter, 2018

	November 4-7, 2018 Indianapolis, IN, USA	<b>2018 GSA Annual Meeting</b> , NCTS# 32778-19 <a href="https://www.geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2018.aspx">https://www.geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2018.aspx</a> <i>T51: Planetary Aeolian Geology from Outcrop to Orbit: Nathan Bridges Memorial Session</i>
	November 6-8, 2018 Laurel, MD, USA	<b>16th Venus Exploration Analysis Group meeting</b> , NCTS# 34829-19 <a href="https://www.lpi.usra.edu/vexag/meetings/vexag-16/">https://www.lpi.usra.edu/vexag/meetings/vexag-16/</a>
	November 14-15, 2018 Columbia, MD, USA	<b>Annual Meeting of the Lunar Exploration Analysis Group</b> , NCTS# 35486-19 <a href="https://www.hou.usra.edu/meetings/leag2018/">https://www.hou.usra.edu/meetings/leag2018/</a>
<b>New!</b>	November 14-16, 2018 Lulea, Sweden	<b>Debate on Mars Exploration and Research</b> <a href="https://atmospheres.research.ltu.se/mars_debate/">https://atmospheres.research.ltu.se/mars_debate/</a>
	November 26, 2018	<b>Insight landing</b>
	December 10-14, 2018 Washington, DC, USA	<b>American Geophysical Union Fall Meeting</b> , NCTS# 31561-19 <a href="https://fallmeeting.agu.org/2018/">https://fallmeeting.agu.org/2018/</a>

## First Quarter, 2019

	January 6-10, 2019 Seattle, WA, USA	<b>233rd Meeting of the American Astronomical Society</b> , NCTS 33337-19 <a href="https://aas.org/meetings/aas233">https://aas.org/meetings/aas233</a>
	January 29-February 1, 2019 Carlsbad, NM, USA	<b>Mars Extant Life: What's Next?</b> , NCTS# 35763-19 <a href="https://www.hou.usra.edu/meetings/lifeonmars2019/">https://www.hou.usra.edu/meetings/lifeonmars2019/</a>
	January 29-31, 2019 Houston, TX, USA	<b>20th Meeting of the NASA Small Bodies Assessment Group</b> , NCTS# 35910-19 <a href="https://www.lpi.usra.edu/sbag/meetings/">https://www.lpi.usra.edu/sbag/meetings/</a>
	February 7-8, 2019 Scottsdale, AZ, USA	<b>Women in Space</b> , NCTS# 36591-19 <a href="http://www.womeninspacecon.com/">http://www.womeninspacecon.com/</a>
	February 25-27, 2019 Provence, France	<b>Workshop on In-Situ Exploration of the Ice Giants</b> , NCTS# 36673-19 <a href="https://ice-giant-workshop.lam.fr/">https://ice-giant-workshop.lam.fr/</a>
	March 2-9, 2019 Big Sky, MT, USA	<b>IEEE Aerospace Conference</b> , NCTS# 35072-19 <a href="https://www.aeroconf.org/">https://www.aeroconf.org/</a>
<b>New!</b>	March 7-10, 2019 Norman, OK, USA	<b>International Continental Drilling Program Workshop - Probing Continental Climate of the Late Paleozoic Icehouse-Greenhouse Transition</b> <a href="https://www.icdp-online.org/">https://www.icdp-online.org/</a> <i>May be of interest to researchers studying continental dust and evaporite deposits.</i>
	March 18-22, 2019 The Woodlands, TX, USA	<b>50th Lunar and Planetary Science Conference</b> , NCTS# 35124-19 <a href="https://www.hou.usra.edu/meetings/lpsc2019/">https://www.hou.usra.edu/meetings/lpsc2019/</a>
<b>New!</b>	March 25-29, 2019 Quy Nhon, Vietnam	<b>Life3E: Search for Life, from Early Earth to Exoplanets</b> <a href="https://licisequynhon.com/conferences/2019/search-for-life/">https://licisequynhon.com/conferences/2019/search-for-life/</a>
	March 26-28, 2019 Washington, DC, USA	<b>NASEM's Committee on Astrobiology and Planetary Science (CAPS)</b> <a href="http://sites.nationalacademies.org/SSB/SSB_067577#Meetings_and_Events">http://sites.nationalacademies.org/SSB/SSB_067577#Meetings_and_Events</a>
	March 31-April 5, 2019 Puerto Vallarta, Mexico	<b>New Quests in Stellar Astrophysics IV: Astrochemistry, Astrobiology and the Origin of Life</b> , NCTS# 36683-19 <a href="https://www.inaoep.mx/~puerto19/">https://www.inaoep.mx/~puerto19/</a>

## Second Quarter, 2019

	April 1-3, 2019 Potomac, MD, USA	<b>The Space Astrophysics Landscape for the 2020s and Beyond</b> , NCTS 36044-19 <a href="https://www.hou.usra.edu/meetings/landscape2019/">https://www.hou.usra.edu/meetings/landscape2019/</a>
<b>New!</b>	April 4-6, 2019 Auckland, New Zealand	<b>2nd International Conference on Astronomy, Astrophysics &amp; Astrobiology</b> <a href="http://kindcongress.com/congress/astronomy-congress-2019/">http://kindcongress.com/congress/astronomy-congress-2019/</a>
	April 29-May 3, 2019 Washington, D.C., USA	<b>2019 IAA Planetary Defense Conference</b> , NCTS# 36743-19 <a href="http://pdc.iaaweb.org/">http://pdc.iaaweb.org/</a>
	May 14-16, 2019 Houston, TX, USA	<b>3rd COSPAR Workshop on Planetary Protection for Human Missions to Mars</b>
<b>New!</b>	May 20-21, 2019 Berlin, Germany	<b>2nd European Physics Conference</b> <a href="https://www.meetingsint.com/conferences/europhysics">https://www.meetingsint.com/conferences/europhysics</a>
	June 3-7, 2019 Heidelberg, Germany	<b>Planetary Dynamics 2019</b> <a href="http://www2.mpia-hd.mpg.de/homes/dynamics2019/">http://www2.mpia-hd.mpg.de/homes/dynamics2019/</a>
	June 10-13, 2019 Boulder, CO, USA	<b>50th Annual Meeting of the Division of Dynamical Astronomy (DDA) of the AAS</b> <a href="https://dda.aas.org/meetings/2019">https://dda.aas.org/meetings/2019</a>

### Second Quarter, 2019 cont.

	June 18-19, 2019 Coimbra, Portugal	<b>International Meeting on Paleoclimate: Changes and Adaptation</b> , <a href="https://paleoclimate2019.wixsite.com/paleoclimate2019">https://paleoclimate2019.wixsite.com/paleoclimate2019</a> Research Topic T1: Paleoclimates in the Solar System: external forcing and divergent evolutions
	June 24-28, 2019 Seattle, WA, USA	<b>2019 Astrobiology Science Conference (AbSciCon)</b> , NCTS 36103-19 <a href="https://astrobiology.nasa.gov/news/abscicon-2019-save-the-date/">https://astrobiology.nasa.gov/news/abscicon-2019-save-the-date/</a>
	June 24-28, 2019 Lyon, France	<b>European Week of Astronomy and Space Science (EWASS 2019)</b> <a href="http://eas.unige.ch/EWASS2019/call.jsp">http://eas.unige.ch/EWASS2019/call.jsp</a>
<b>New!</b>	June 30-July 4, 2019 Lancashire, England	<b>Royal Astronomical Society 2019 National Astronomy Meeting</b> <a href="https://nam2019.org/">https://nam2019.org/</a>

### Third Quarter, 2019

	July 8-12, 2019 Oxford, UK	<b>International Planetary Probe Workshop 2019</b> , NCTS# 36747-19 <a href="https://ippw2019.uk/">https://ippw2019.uk/</a>
	July 14-18, 2019 Laurel, MD, USA	<b>The Pluto System After New Horizons (PSANH)</b> , NCTS# 31320-19 <a href="https://www.hou.usra.edu/meetings/plutosystem2019/">https://www.hou.usra.edu/meetings/plutosystem2019/</a>
	July 22-26, 2019 Pasadena, CA, USA	<b>9th International Conference on Mars</b> , NCTS# 31488-19 <a href="https://www.hou.usra.edu/meetings/ninthmars2019/">https://www.hou.usra.edu/meetings/ninthmars2019/</a>
	July 23-25, 2019 Moffett Field, CA, USA	<b>NASA Exploration Science Forum 2019</b> , NCTS# 36800-19 <a href="https://nesf2019.arc.nasa.gov/">https://nesf2019.arc.nasa.gov/</a>
	September 10-12, 2019 Irvine, CA, USA	<b>NASEM's Committee on Astrobiology and Planetary Science (CAPS)</b> <a href="http://sites.nationalacademies.org/SSB/SSB_067577#Meetings_and_Events">http://sites.nationalacademies.org/SSB/SSB_067577#Meetings_and_Events</a>
	September 8-12, 2019 Big Sky, MT, USA	<b>The First Billion Years: Habitability: Producing Conditions Conducive to Life</b> <a href="https://www.lpi.usra.edu/first-billion-years/">https://www.lpi.usra.edu/first-billion-years/</a>
	September 15-20, 2019 Geneva, Switzerland	<b>51st Meeting of the AAS Division for Planetary Science</b> <a href="https://dps.aas.org/meetings/future">https://dps.aas.org/meetings/future</a>
	September 22-25, 2019 Phoenix, AZ, USA	<b>2019 GSA Annual Meeting</b> <a href="https://www.geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2019.aspx">https://www.geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2019.aspx</a>
	September 30-October 3, 2019 Brasilia, Brazil	<b>Large Meteorite Impacts and Planetary Evolution VI (LMI VI)</b> <a href="https://www.hou.usra.edu/meetings/lmi2019/">https://www.hou.usra.edu/meetings/lmi2019/</a>

### Fourth Quarter, 2019

	November 4-8, 2019 Herzliya, Israel	<b>The 4th COSPAR Symposium: Small Satellites for Sustainable Science and Development</b> <a href="http://www.cospar2019.org/">http://www.cospar2019.org/</a>
	December 9-13, 2019 San Francisco, CA, USA	<b>2019 AGU Fall Meeting</b> <a href="https://fallmeeting.agu.org/2018/future-meetings/">https://fallmeeting.agu.org/2018/future-meetings/</a>

**Seasons on Mars**

	<b>MY35</b>	<b>MY36</b>	<b>MY 37</b>
<b>Start of Northern Spring / L<sub>s</sub> 0</b>	3/23/2019	2/07/2021	12/26/2022
<b>Start of Northern Summer / L<sub>s</sub> 90</b>	10/08/2019	8/25/2021	7/13/2023
<b>Start of Northern Autumn / L<sub>s</sub> 180</b>	4/08/2020	2/24/2022	1/12/2024
<b>Start of Northern Winter / L<sub>s</sub> 270</b>	9/02/2020	7/21/2022	6/7/2024

**Special holidays to consider when scheduling conferences/workshops/meetings**

Good Friday	3/30/2018	4/19/2019	4/10/2020	4/2/2021
Rosh Hashanah	9/10/2018	9/30/2019	9/19/2020	9/7/2021
Yom Kippur	9/19/2018	10/09/2019	9/28/2020	9/16/2021

(Note that Jewish holidays start at sundown the previous evening)

Thanksgiving Day, Canada	10/08/2018	10/14/2019	10/12/2020	10/11/2021
Thanksgiving Day, U.S.	11/22/2018	11/28/2019	11/26/2020	11/25/2021
Christmas Day	12/25/2018	12/25/2019	12/25/2020	12/25/2021

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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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