

# Mars Exploration Science Monthly Newsletter

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

August 2019

## Mars Science News

### Ninth International Conference on Mars welcomed nearly 600 Martians to Caltech

The Ninth International Conference on Mars was held at the California Institute of Technology (Caltech) in Pasadena, California, Monday, July 22 through Thursday, July 25. We thank all participants for great discussion and engagement; and in particular thank our Integration Teams for their hard work in identifying high-level ideas. Work is ongoing to add Plenary oral presentations and the Integration Team's report to the Conference website: <https://www.hou.usra.edu/meetings/ninthmars2019/> – an email and newsletter notice will be shared when these documents are available.

### Presentations from the MEPAG Meeting 37 (following 9<sup>th</sup> Mars Conference) are posted

A face-to-face MEPAG meeting (#37) was 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), with nearly 200 in-person and ~50 online attendees. All presentations from that meeting are now available at: <https://mepag.jpl.nasa.gov/meetings.cfm?expand=m37>, and a summary document will be added next week. Comments about the meeting and any of the discussed topics can be sent to [MEPAGmeetingQs@jpl.nasa.gov](mailto:MEPAGmeetingQs@jpl.nasa.gov).

### Save-the-date for the next virtual MEPAG Meeting (VM6): morning of August 27 or 28

Following up on discussion from [MEPAG Meeting 37](#) and in preparation for the [September CAPS meeting](#), MEPAG plans to hold a virtual meeting during the morning of Tuesday, August 27 (most likely 2hrs, within 9am-12pm PDT). At this virtual meeting, we will present the proposed final wording for the Findings from MEPAG Meeting 37 (held July 26, 2019 in Pasadena, CA) and discuss possible statements from MEPAG about future New Frontiers candidates, which is being discussed by several AGs. Suggestions about additional agenda items for VM6 can be sent to [MEPAGmeetingQs@jpl.nasa.gov](mailto:MEPAGmeetingQs@jpl.nasa.gov). Information about the VM6 schedule and agenda will be announced via email and will be posted to the [MEPAG meeting page](#).

### Volunteers requested for NASA Mars Strategic Architecture study group

Following the recommendations made in the [mid-term review of Visions & Voyages](#), a Mars Strategic Architecture study group is being set up by NASA, with Bruce Jakosky (CU Boulder/LASP) as Chair. The scope and membership of this study group are still in work, but it is planned that the major activity will take place between now and early next year. Volunteers with broad interests and time availability for this study should email Michael Meyer ([michael.a.meyer@nasa.gov](mailto:michael.a.meyer@nasa.gov)) by **August 14**, with the subject line: Mars Strategy.

### Welcome to new Goal III (Geology) Representative for the MEPAG Goals Document

Rebecca Williams (Planetary Science Institute) is the new MEPAG Goal III representative, joining Briony Horgan (Purdue University) and filling the role vacated by R. Aileen Yingst (Planetary Science Institute) when she became MEPAG Chair. We thank Aileen for her service as a Goal III Representative and welcome Rebecca! Rebecca Williams is a planetary geologist whose research focuses on understanding the history of water on Mars as preserved in the rock record. Building upon knowledge from terrestrial analogs, her research analyzes remote sensing data from orbiters and rovers to reconstruct the processes involved in landscape evolution, and their implications for past climates. She is a Participating Scientist with NASA's Odyssey (THEMIS cameras) and the Mars Science Laboratory Curiosity rover missions.

The current list of Goals Reps (i.e., those engaged in the next round of Goals Document revisions, below) can be found at <https://mepag.jpl.nasa.gov/about.cfm>.

## Initial comment period is open for MEPAG Goals Document, 2019 revisions

From MEPAG Goals Chair, Don Banfield:

“As discussed at the recent MEPAG meeting on July 26th, following the 9th International Conference on Mars in Pasadena, we are initiating a full revision to the MEPAG Goals Document. The MEPAG Goals document is an important living document that is intended to capture and rank the ever-evolving highest priority science questions at Mars (Goals I-III), as well as the engineering needs to start to send Humans to Mars (Goal IV). Its value comes in its ability to represent the consensus of the Mars community and to remain current. To that end, we urge you to read the current MEPAG Goals Document, and provide feedback to the MEPAG Goals Committee via google form (link below) or by reaching out to one of the MEPAG Goals Committee representatives on changes you think are needed to the document.

We have a short timeline to complete this revision, as we want it to be completed (with another opportunity for community input on a first draft near New Year’s) in time for its incorporation into White Papers and discussions by the next Planetary Science Decadal Survey committee. Consequently, we will only be accepting input on the web form through **end-of-day on August 16th**. You can always reach out to the Goals Committee Members with your thoughts on updates needed to the document, but only input received by August 16th will be considered by the Goals Committee as they begin this major revision of the MEPAG Goals Document. Please break your input into comments on the particular goal(s) in which you wish to see changes. We also invite comments on the cross-cutting themes.”

Anonymous inputs are also welcomed. To submit comments, the google form can be accessed here: <https://docs.google.com/forms/d/e/1FAIpQLSekhW4tSks9WfmkvDAeVDg2Kw0DTTRwnsYyFkmUmq9AvszcWQ/viewform>.

## Mars-relevant Special Issues Welcoming Paper Submissions

- The open-access journal *Atmospheres* (ISSN 2073-4433) is currently accepting contributions to the special issue “Modeling and Simulation of Planetary Atmospheres”. If necessary, reasonable time extensions may be negotiated before the due date by contacting the Managing Editor (Colin Chen [colin.chen@mdpi.com](mailto:colin.chen@mdpi.com)) or the Guest Editor (Tim Dowling [dowling@louisville.edu](mailto:dowling@louisville.edu)).  
[https://www.mdpi.com/journal/atmosphere/special\\_issues/planetary\\_atmospheres](https://www.mdpi.com/journal/atmosphere/special_issues/planetary_atmospheres)  
**Submission deadline: 16 August 2019**
- The Journal *Atmosphere* (ISSN 2073-4433) is requesting papers for a special issue “Observations and Measurements of the Martian Atmosphere.” Dr. Sonal Kumar Jain and Dr. Edward Thiemann are serving as guest editors; their invitation letter states “Given the wealth of data collected by past missions to the red planet and the numerous missions presently at Mars that, when considered in aggregate, are characterizing the entire atmosphere, it is timely to bring together a collection of papers on the latest analyses of Mars atmospheric observations and measurements. We encourage submissions of research that analyze data from any region of the Mars atmosphere, including the ionosphere. Further, although space-based observations are emphasized, ground-based measurements are also welcome.” For more information: [https://www.mdpi.com/journal/atmosphere/special\\_issues/martian\\_atmosphere](https://www.mdpi.com/journal/atmosphere/special_issues/martian_atmosphere)  
**Submission deadline: 20 September 2019**
- 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](https://www.mdpi.com/si/life/Planetary_Exploration)  
**Submission deadline: 15 October 2019**

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

Due	Project
August 10	<b>Venera-D Landing Sites and Cloud Layer Habitability Workshop</b> – Abstract Deadline
August 15	<b>International Association of Sedimentologists (IAS)</b> – Registration Deadline
August 18	<b>Planetary Exploration, Horizon 2061</b> – Abstract & Early Registration Deadline
August 19	<b>2019 GSA Annual Meeting</b> – Early Registration Deadline
August 22	<b>Mars Extant Life: What’s Next?</b> – Abstract Deadline
August 26	<b>The First Billion Years: Habitability: Producing Conditions Conducive to Life</b> – Registration Deadline
September 1	<b>KICC: Rocky Worlds: from the Solar System to Exoplanets</b> – Registration Deadline
September 6	<b>Asteroid Science in the Age of Hayabusa 22 and OSIRIS-REX</b> – Abstract Deadline
October 7	<b>Mars Extant Life: What’s Next?</b> – Registration Deadline
October 11	<b>Asteroid Science in the Age of Hayabusa 22 and OSIRIS-REX</b> – Registration Deadline
October 30	<b>Seventh International Conference on Mars Polar Science and Exploration</b> – 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](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.

Third Quarter, 2019		
NEW	August 19, 2019 Boulder, CO, USA	<b>Subsurface Needs for Ocean Worlds meeting</b> <a href="mailto:https://www.lpi.usra.edu/opag/">mailto:https://www.lpi.usra.edu/opag/</a>
NEW	August 20-21, 2019 Boulder, CO, USA	<b>OPAG Meeting</b> <a href="https://www.lpi.usra.edu/opag/">https://www.lpi.usra.edu/opag/</a> <i>Note that during the meeting, they intend to arrange panel discussions on various topics relevant to preparation for the next Decadal Survey; contact Carrie Chavez (<a href="mailto:cchavez@seti.org">cchavez@seti.org</a>) by August 15 if you would like to lead one of these panel discussions.</i>
	September 8-12, 2019 Big Sky, MT, USA	<b>The First Billion Years: Habitability: Producing Conditions Conducive to Life,</b> NCTS 28519-20 <a href="https://www.hou.usra.edu/meetings/habitability2019/">https://www.hou.usra.edu/meetings/habitability2019/</a>
	September 10-12, 2019 Pasadena, 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 10-13, 2019 Rome, Italy	<b>International Association of Sedimentologists (IAS)</b> <a href="http://iasroma2019.org/">http://iasroma2019.org/</a>
NEW	September 11-13, 2019 Rome, Italy	<b>Asteroid Impact Deflection Assessment (AIDA) workshop</b> <a href="https://www.cosmos.esa.int/web/aida-international-workshop/home">https://www.cosmos.esa.int/web/aida-international-workshop/home</a>
NEW	September 11-13, 2019 Toulouse, France	<b>Planetary Exploration, Horizon 2061</b> <a href="https://h2061-tlse.sciencesconf.org/">https://h2061-tlse.sciencesconf.org/</a> <i>Note: This was intentionally scheduled just before the EPSC-DPS meeting, and travel from Toulouse to Geneva can be done via one-hour direct flights</i>
	September 15-20, 2019 Geneva, Switzerland	<b>Joint Meeting: 51st Meeting of the AAS Division for Planetary Sciences (DPS), joint with the European Planetary Science Congress (EPSC),</b> NCTS 37080-19 <a href="https://www.epsc-dps2019.eu/">https://www.epsc-dps2019.eu/</a>
	September 22-25, 2019 Phoenix, AZ, USA	<b>2019 GSA Annual Meeting,</b> NCTS 37526-19 <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 23-25, 2019 Madrid, Spain	<b>Titan after Cassini-Huygens Workshop,</b> NCTS 37783-19 <a href="https://www.cosmos.esa.int/web/titan-after-cassini-huygens/home">https://www.cosmos.esa.int/web/titan-after-cassini-huygens/home</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		
	October 14-15, 2019 Baltimore, MD, USA	<b>Inclusive Astronomy 2 Conference</b> <a href="https://outerspace.stsci.edu/display/IA2">https://outerspace.stsci.edu/display/IA2</a>
	October 21-25, 2019 Washington, DC, USA	<b>70th International Astronautical Congress (IAC),</b> NCTS 36775-20 <a href="https://www.iac2019.org/">https://www.iac2019.org/</a>
	October 28-30, 2019 Saratoga Springs, NY, USA	<b>2nd RPI Space Imaging Workshop</b> <a href="http://seal.rpi.edu/workshop/2019">http://seal.rpi.edu/workshop/2019</a>
	October 28-30, 2019 Washington, DC USA	<b>Lunar Exploration Analysis Group (LEAG) meeting</b> <a href="https://www.lpi.usra.edu/leag/">https://www.lpi.usra.edu/leag/</a>
	November 4-8, 2019 Herzliya, Israel	<b>The 4th COSPAR Symposium: Small Satellites for Sustainable Science and Development,</b> NCTS 37773-20 <a href="http://www.cospar2019.org/">http://www.cospar2019.org/</a>

Fourth Quarter, 2019 continued

	November 5-8, 2019 Carlsbad, NM, USA	<b>Mars Extant Life: What's Next?</b> <a href="https://www.hou.usra.edu/meetings/lifeonmars2019/">https://www.hou.usra.edu/meetings/lifeonmars2019/</a>
	November 5-7, 2019 Tucson, AZ, USA	<b>Asteroid Science in the Age of Hayabusa 22 and OSIRIS-REX</b> <a href="https://corex.lpl.arizona.edu/international-workshop">https://corex.lpl.arizona.edu/international-workshop</a>
	December 9-12, 2019 Sugar Land, TX, USA	<b>First International Orbital Debris Conference (IOC)</b> <a href="https://www.hou.usra.edu/meetings/orbitaldebris2019/">https://www.hou.usra.edu/meetings/orbitaldebris2019/</a>
	December 9-13, 2019 San Francisco, CA, USA	<b>2019 AGU Fall Meeting, NCTS 37409-20</b> <a href="https://fallmeeting.agu.org/2018/future-meetings/">https://fallmeeting.agu.org/2018/future-meetings/</a>

## 2020

	January 6-8, 2020 Cambridge, England	<b>KICC: Rocky Worlds: from the Solar System to Exoplanets</b> <a href="https://www.kicc.cam.ac.uk/events/rocky-worlds-from-the-solar-system-to-exoplanets">https://www.kicc.cam.ac.uk/events/rocky-worlds-from-the-solar-system-to-exoplanets</a>
	January 13-17, 2020 Ushuaia, Tierra del Fuego, Argentina	<b>7<sup>th</sup> International Conference on Mars Polar Science and Exploration</b> <a href="https://www.hou.usra.edu/meetings/marspolar2020/">https://www.hou.usra.edu/meetings/marspolar2020/</a>
	January 20-22, 2020 London, England	<b>Ice Giants Systems 2020</b> <a href="https://ice-giants.github.io/">https://ice-giants.github.io/</a>
	February 11-13, 2020 Houston, TX, USA	<b>LPI Workshop: The impact of lunar dust on human exploration</b> <a href="https://www.hou.usra.edu/meetings/lunardust2020/">https://www.hou.usra.edu/meetings/lunardust2020/</a>
<b>NEW</b>	February 18-21, 2020 San Antonio, TX, USA	<b>3<sup>rd</sup> International Planetary Caves Conference</b> <a href="https://www.hou.usra.edu/meetings/3rdcaves2020/">https://www.hou.usra.edu/meetings/3rdcaves2020/</a>
<b>NEW</b>	March 2-6, 2020 Santiago, Chile	<b>Ground and space observatories: a joint venture to planetary science workshop</b> <a href="https://conference.almaobservatory.org/planets2020/">https://conference.almaobservatory.org/planets2020/</a>
<b>NEW</b>	March 7-14, 2020 Big Sky, MT, USA	<b>IEEE Aerospace Conference</b> <a href="https://www.aeroconf.org/">https://www.aeroconf.org/</a>
	March 16-20, 2020 The Woodlands, TX, USA	<b>LPSC</b> <a href="https://www.hou.usra.edu/meetings/lpsc2020/">https://www.hou.usra.edu/meetings/lpsc2020/</a>
	April 20-23, 2020 Seattle, WA, USA	<b>ASCE Earth &amp; Space Conference</b> <b>Symposium 2: Exploration and Utilization of Extra-Terrestrial Bodies</b> <a href="https://www.earthspaceconference.org/symposium-2">https://www.earthspaceconference.org/symposium-2</a>
	May 3-8, 2020 Les Houches, France	<b>Workshop Mars V</b> <a href="https://www.cosmos.esa.int/web/planet-mars-5/home">https://www.cosmos.esa.int/web/planet-mars-5/home</a>
	May 12-15, 2020 Alamosa, CO, USA	<b>6<sup>th</sup> International Planetary Dunes Workshop</b> <a href="https://www.hou.usra.edu/meetings/dunes2020/">https://www.hou.usra.edu/meetings/dunes2020/</a>
	June 2-4, 2020 Orleans, France	<b>Mercury 2020, Current and future science of the innermost planet</b> <a href="https://mercury2020.ias.u-psud.fr/main_1st.php">https://mercury2020.ias.u-psud.fr/main_1st.php</a>
<b>NEW</b>	July, 2020	<b>Launch window for the UAE EMM orbiter (Hope)</b>
<b>NEW</b>	July 26-August 11, 2020	<b>Launch window for the ESA-Russia ExoMars rover (Rosalind Franklin)</b>
<b>NEW</b>	July 17-August 5, 2020	<b>Launch window for the NASA Mars 2020 rover</b>
	August 15-23, 2020 Sydney, Australia	<b>43<sup>rd</sup> COSPAR Scientific Assembly</b> <a href="https://www.cospar-assembly.org/">https://www.cospar-assembly.org/</a>

	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

## Editors

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

Barbara Saltzberg at [Barbara.a.Saltzberg@jpl.nasa.gov](mailto:Barbara.a.Saltzberg@jpl.nasa.gov)

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

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