

# Mars Exploration Science Monthly Newsletter

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

September 2019

## Mars Science News

### Presentations from the MEPAG Virtual Meeting VM6 are posted

Following up on discussion from [MEPAG Meeting 37](#) and in preparation for the [September CAPS meeting](#), MEPAG held a [virtual meeting](#) on Wednesday, August 28, 12-2 pm EDT. At this virtual meeting, the proposed final wording for the Findings from MEPAG Meeting 37 (held July 26, 2019 in Pasadena, CA) and possible statements from MEPAG about future New Frontiers candidates (a topic being discussed by several AGs) were discussed. Additionally, a request for community feedback from the Planetary Protection Independent Review Board was issued (see below). Presentations from VM6 have been posted to the [MEPAG meeting VM6 page](#), and a Summary Report will be added in the near-future. Comments about VM6 and any of the discussed topics can be sent to [MEPAGmeetingQs@jpl.nasa.gov](mailto:MEPAGmeetingQs@jpl.nasa.gov).

### Comments requested by PPIRB about Mars Planetary Protection

Wendy Calvin (University of Nevada-Reno), a member of the Planetary Protection Independent Review Board (PPIRB), requests feedback from MEPAG regarding:

- 1) *Planetary protection (PP) as currently implemented for Mars*
- 2) *Suggestions for how to improve PP for Mars*
- 3) *What we need to learn or study in order to update our understanding of Martian "Special Regions"*

In addition to discussion at the recent [MEPAG virtual meeting \(VM6\)](#), comments are welcomed via google form through **Wednesday, Sept 4:**

[https://docs.google.com/forms/d/e/1FAIpQLSe\\_3IZT-06\\_0SGE7fyMcBMKNUdxrA87WUfwcrPO3QFp2YCanA/viewform](https://docs.google.com/forms/d/e/1FAIpQLSe_3IZT-06_0SGE7fyMcBMKNUdxrA87WUfwcrPO3QFp2YCanA/viewform)

For more context of the discussion at VM6, Dave Beaty's (MPO/JPL) presentation on this topic is available, along with all other VM6 presentations, at the meeting website: <https://mepag.jpl.nasa.gov/meetings.cfm?expand=vm6>.

### Integration Report and Plenaries from Ninth International Conference on Mars now available

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. A key aim of this conference was to synthesize advancements in different disciplines and areas of Mars investigations, and to identify key advancements and open questions. Teams of Integrators generated a report to summarize these points, in the areas of Climate, Geology, Life, and Preparation for Human Exploration. These reports, along with plenary oral presentations, are now available from the Conference website: <https://www.hou.usra.edu/meetings/ninthmars2019/> (see "Presentations" in the menu).

### Mars-relevant Special Issues Welcoming Paper Submissions

- 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
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
September 19	<b>36<sup>th</sup> International Geological Congress</b> – Free Abstract Deadline
September 20	<b>Large Meteorite Impacts and Planetary Evolution VI (LMI VI)</b> – Registration Deadline
September 21	<b>70th International Astronautical Congress (IAC)</b> – Registration 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 23	<b>2<sup>nd</sup> RPI Space Imaging Workshop</b> – Registration Deadline
October 30	<b>Seventh International Conference on Mars Polar Science and Exploration</b> – Abstract Deadline
October 30	<b>4th COSPAR Symposium: Small Satellites for Sustainable Science and Development</b> – Registration Deadline
November 11	<b>First International Orbital Debris Conference (IOC)</b> – Early Registration Deadline
November 13	<b>Exoplanets in Our Backyard</b> – Abstract Deadline
November 22	<b>First International Orbital Debris Conference (IOC)</b> – Registration Deadline
November 30	<b>IEEE Aerospace Conference</b> – Early Registration Deadline

## Upcoming Conferences



- Only foreign and NASA-sponsored conferences will have an NCTS#; missing NCTS#s can be sent to Barbara Saltzberg ([Barbara.A.Saltzberg@jpl.nasa.gov](mailto:Barbara.A.Saltzberg@jpl.nasa.gov)).
- Forecasting to NCTS is usually 60 days in advance for domestic meetings. 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

<b>UPDATED</b>	September 8-11, 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>
<b>UPDATED</b>	September 10-13, 2019 Rome, Italy	<b>International Association of Sedimentologists (IAS)</b> NCTS 38392-19 <a href="http://iasroma2019.org/">http://iasroma2019.org/</a>
	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>
	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>

Fourth Quarter, 2019 – cont.		
UPDATED	October 28-30, 2019 Saratoga Springs, NY, USA	<b>2nd RPI Space Imaging Workshop</b> NCTS 38392-19 <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>
	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>
UPDATED	December 9-12, 2019 Sugar Land, TX, USA	<b>First International Orbital Debris Conference (IOC)</b> NCTS 38110-20 <a href="https://www.hou.usra.edu/meetings/orbitaldebris2019/">https://www.hou.usra.edu/meetings/orbitaldebris2019/</a>
UPDATED	December 9-13, 2019 San Francisco, CA, USA	<b>2019 AGU Fall Meeting</b> , NCTS 37409-20 <a href="mailto:https://www.agu.org/fall-meeting">mailto:https://www.agu.org/fall-meeting</a>

First Quarter, 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>7th International Conference on Mars Polar Science and Exploration</b> NCTS 39128-20 <a href="https://www.hou.usra.edu/meetings/marspolar2020/">https://www.hou.usra.edu/meetings/marspolar2020/</a>
UPDATED	January 20-22, 2020 London, England	<b>Ice Giants Systems 2020</b> NCTS 38573-20 <a href="https://ice-giants.github.io/">https://ice-giants.github.io/</a>
NEW	February 5-7, 2020 Houston, TX, USA	<b>Exoplanets in Our Backyard</b> <a href="mailto:www.hou.usra.edu/meetings/exoplanets2020/">mailto:www.hou.usra.edu/meetings/exoplanets2020/</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>
	February 18-21, 2020 San Antonio, TX, USA	<b>3rd International Planetary Caves Conference</b> <a href="https://www.hou.usra.edu/meetings/3rdcaves2020/">https://www.hou.usra.edu/meetings/3rdcaves2020/</a>
UPDATED	March 2-6, 2020 Santiago, Chile	<b>Ground and space observatories: a joint venture to planetary science workshop</b> NCTS 39529-20 <a href="https://conference.almaobservatory.org/planets2020/">https://conference.almaobservatory.org/planets2020/</a>
NEW	March 2-8, 2020 Dehli, India	<b>36th International Geological Congress (IGC)</b> <a href="mailto:https://www.36igc.org/home">mailto:https://www.36igc.org/home</a>
	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>

Second Quarter, 2020		
	April 20-23, 2020 Seattle, WA, USA	<b>ASCE Earth &amp; Space Conference 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>6th 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>

Third-Fourth Quarter, 2020		
	July, 2020	Launch window for the UAE EMM orbiter (Hope)
	July 26-August 11, 2020	Launch window for the ESA-Russia ExoMars rover (Rosalind Franklin)
	July 17-August 5, 2020	Launch window for the NASA Mars 2020 rover
<b>UPDATED</b>	August 15-22, 2020 Sydney, Australia	<b>43<sup>rd</sup> COSPAR Scientific Assembly</b> NCTS 35724-20 <a href="https://www.cospar-assembly.org/">https://www.cospar-assembly.org/</a>
<b>NEW</b>	October 5-8, 2020 Houston, TX, USA	<b>Martian Enigmas 2020</b> <a href="mailto:https://www.hou.usra.edu/meetings/martianenigmas2020/">mailto:https://www.hou.usra.edu/meetings/martianenigmas2020/</a>

### Seasons on Mars

	MY34	MY35	MY36
<b>Start of Northern Spring / L<sub>s</sub> 0</b>	03/23/2019	02/07/2021	12/26/2022
<b>Start of Northern Summer / L<sub>s</sub> 90</b>	10/08/2019	08/25/2021	07/13/2023
<b>Start of Northern Autumn / L<sub>s</sub> 180</b>	04/08/2020	02/24/2022	01/24/2024
<b>Start of Northern Winter / L<sub>s</sub> 270</b>	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 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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