

# Mars Exploration Science Monthly Newsletter

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

December 2014

## Mars Science News

### **Invitation to the 30th MEPAG Meeting**

February 24-25, 2015

Monrovia, CA (Los Angeles area)

Professor Lisa Pratt, MEPAG Chair, cordially invites attendance at the 2015 face-to-face meeting of the Mars Exploration Program Analysis Group (MEPAG), scheduled for 1.5 days, February 24-25, 2015, at the Double-Tree Hotel in Monrovia, CA. The meeting is open to all members of the Mars science community, including international colleagues.

Key discussion topics will include:

- Status of Mars exploration by NASA and other space agencies
- Interaction with the Human program (HEOMD)
- NASA and ESA landing site selection activities
- Proposed revision of the MEPAG Goals document.

The First Circular for this meeting is posted at <http://mepag.nasa.gov/meetings.cfm?expand=m30>. The Second Circular, containing hotel and webcast information, along with the agenda, will be posted there in the near-future.

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### **Second Landing Site Workshop for the Mars 2020 Rover**

August 4-6, 2015

Pasadena, CA (venue TBD)

This workshop will focus on further evaluation of candidate sites introduced at the first workshop (May 2014) as well as new candidate sites. The candidate landing sites emerging from this workshop will then be considered in more detail by the 2020 Project, Mars Program, and the Science Community. New sites may be proposed and discussed at the workshop, with the expectation that such new sites will be based in part on discoveries related to new data from MRO. Future workshops (beyond 2015) would further narrow the list of sites under consideration to a recommended landing site zone and (eventually) precise landing ellipse.

John Grant and Matt Golombek, Co-Chairs of the Mars Landing Site Steering Committee, encourage all members of the scientific community to participate in this activity, as robust input from the science community is critical to identifying the optimal landing site for the 2020 rover. The workshop announcement and results from the first workshop are posted on the Mars 2020 landing site website: <http://marsnext.jpl.nasa.gov>.

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### **MEPAG Mailing List Updates**

The Mars Program Office has recently updated the MEPAG mailing list (the one this newsletter is sent out to), including adding Mars aficionados who have attended recent MEPAG- and Mars-focused events. If you wish to withdraw from this electronic mailing list, please send an email from your email account to [mepag-removesignup@jpl.nasa.gov](mailto:mepag-removesignup@jpl.nasa.gov). To be added to this mailing list, please send an email from your email account to [mepag-signup@jpl.nasa.gov](mailto:mepag-signup@jpl.nasa.gov).

## Special Sessions at EGU

Abstract deadline is January 7.

### PS 2.3: Mars Science and Exploration, a session in honour of Professors Gerhard Neukum and Collin Pillinger

The Mars Science and Exploration Session will address the latest results on the interior, surface, atmosphere and ionosphere of Mars from recent and ongoing Mars missions, such as Mars Global Surveyor, Mars Express, Mars Odyssey, Mars Reconnaissance Orbiter, MERs, Phoenix, Curiosity, MAVEN and Mars Orbiter Mission as well as the future exploration of the Red Planet. In particular, the session is primarily targeted at: (1) presentations on scientific investigations as well as theoretical models concerning the deep interior and subsurface structure and composition; the surface geology; the atmospheric composition, dynamics and climate; the ionospheric environment and its interaction with the solar wind; Phobos, water evolution, astrobiology and habitability of Mars; (2) discussions on scientific goals, long-term plans and proposed experiments for future robotic and human missions to Mars, and results obtained from ground-based measurements. Both broad solicited talks and contributed presentations will be included.

Conveners: Damien Loizeau and Olivier Witasse

### PS 2.4, Unraveling Mars: insights from mineralogy and geochemistry

Several remarkable advancements have been achieved on the geology and mineralogy of Mars in recent years using orbital and surface instruments. Through the in situ measurements by SAM and CheMin on the Curiosity rover, we have been able to advance our understanding of chemistry and mineralogy from previous rovers and landers on the Red Planet. Coordinated analyses of multiple datasets from recent and ongoing missions is closing some of the gaps and inconsistencies in our perception of the geological history of Mars, including surface and subsurface geochemical processes. This session aims to foster discussion of the latest discoveries on the surface composition and processes of Mars, particularly focusing on the mineralogy and geochemistry of the Red Planet. We welcome submissions from the Mars community covering a broad range of mineralogy and geochemistry topics. We particularly encourage early career scientists and graduate students to join our session.

Conveners: Christian Mavris, Javier Cuadros, Janice Bishop, Joe Michalski, Jose Miguel Nieto

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

Due	Project
January 5, 2015	<b>Workshop on the Early Solar System Bombardment III</b> Early registration deadline
January 6, 2015	<b>Lunar and Planetary Science Conference</b> Abstract deadline
January 7, 2015	<b>European Geosciences Union General Assembly 2015</b> Abstract deadline
January 20, 2015	<b>Ground and space observatories: a joint venture to planetary science</b> Registration deadline
January 22, 2015	<b>Venus Instrument and Laboratory Measurements Workshop</b> Abstract deadline (update)
February 26, 2015	<b>Comparative Tectonics and Geodynamics of Venus, Earth, and Rocky Exoplanets</b> Abstract deadline
February 28, 2015	<b>5th PCL Focus Days 2015</b> Author registration deadline
March 4, 2015	<b>Astrobiology Science Conference 2015 (Abscon)</b> Abstract deadline

## Upcoming Conferences and Workshops

Fourth Quarter, 2014		
<b>New!</b>	December 11-12, 2014 ALTEC, Turin, ITALY	<b>2nd ExoMars 2018 Landing Site Selection Workshop</b>
	December 15-19, 2014 San Francisco, CA, USA	<b>AGU Fall Meeting</b> <a href="http://fallmeeting.agu.org/2014/">http://fallmeeting.agu.org/2014/</a>

## First Quarter, 2015

	January 13-15, 2015 Tokyo, JAPAN	<b>Earth-Life Science Institute 3rd International Symposium</b> <a href="http://www.elsi.jp/en/research/activities/symposium/2015/01/sympo-03.html">http://www.elsi.jp/en/research/activities/symposium/2015/01/sympo-03.html</a>
	February 4-6, 2015 Houston, TX, USA	<b>Workshop on the Early Solar System Bombardment III</b> <a href="http://www.hou.usra.edu/meetings/bombardment2015/">http://www.hou.usra.edu/meetings/bombardment2015/</a>
<b>New!</b>	February 24-25, 2015 Monrovia, CA, USA	<b>30th MEPAG Meeting</b> <a href="http://mepag.nasa.gov/meetings.cfm?expand=m30">http://mepag.nasa.gov/meetings.cfm?expand=m30</a>
	March 2-5, 2015 Santiago, CHILE	<b>Ground and space observatories: a joint venture to planetary science</b> <a href="http://www.eso.org/sci/meetings/2015/Planets2015.html">http://www.eso.org/sci/meetings/2015/Planets2015.html</a>
	March 7-14, 2015 Big Sky, MT, USA	<b>IEEE Aerospace Conference</b> <a href="http://www.aeroconf.org/">http://www.aeroconf.org/</a>
<b>Correct-ed</b>	March 11-12, 2015 Location TBA	<b>Mars Express Science Working Team Meeting</b> For more information, contact Håkan Svedhem: <a href="mailto:hsvedhem@esa.int">hsvedhem@esa.int</a>
	March 16-20, 2015 The Woodlands, TX, USA	<b>46th Lunar and Planetary Science Conference</b> <a href="http://www.hou.usra.edu/meetings/lpsc2015/">http://www.hou.usra.edu/meetings/lpsc2015/</a>
	March 24-26, 2015 Kennedy Space Center, FL, USA	<b>Planetary Protection Workshop</b> <a href="http://planetaryprotection.nasa.gov/course">http://planetaryprotection.nasa.gov/course</a>
<b>New!</b>	March 31-April 2, 2015 Washington DC, USA	<b>NRC's Committee on Astrobiology and Planetary Science (CAPS)</b>

## Second Quarter, 2015

<b>Updated</b>	April 7-8 2015 Hampton, VA, USA	<b>Venus Instrument and Laboratory Measurements Workshop</b> <a href="http://www.hou.usra.edu/meetings/venustech2015/">http://www.hou.usra.edu/meetings/venustech2015/</a>
	April 12-17, 2015 Vienna, AUSTRIA	<b>European Geosciences Union General Assembly 2015</b> <a href="http://www.egu2015.eu/home.html">http://www.egu2015.eu/home.html</a>
	April 28-29, 2015 Wachtberg, GERMANY	<b>5th PCL Focus Days 2015</b> <a href="http://workshops.fhr.fraunhofer.de/pclfocusdays/">http://workshops.fhr.fraunhofer.de/pclfocusdays/</a>
	May 4-6, 2015 Pasadena, CA, USA	<b>Comparative Tectonics and Geodynamics of Venus, Earth, and Rocky Exoplanets</b> <a href="http://www.hou.usra.edu/meetings/geodyn2015/">http://www.hou.usra.edu/meetings/geodyn2015/</a>
	May 5-7, 2015 Washington, DC, USA	<b>Humans to Mars Summit</b> <a href="http://h2m.exploremars.org/">http://h2m.exploremars.org/</a>
	May 19-22, 2015 Boise, ID, USA	<b>4th International Planetary Dunes Workshop</b> <a href="http://www.hou.usra.edu/meetings/dunes2015/">http://www.hou.usra.edu/meetings/dunes2015/</a>
	May 19-22, 2015 Laural, MD, USA	<b>Workshop on Issues in Crater Studies and the Dating of Planetary Surfaces</b> <a href="http://www.hou.usra.edu/meetings/craterstats2015/">http://www.hou.usra.edu/meetings/craterstats2015/</a>
	May 26-27, 2015 London, UK	<b>iCubeSat 2015: 4th Interplanetary CubeSat Workshop</b> <a href="http://iCubeSat.org">http://iCubeSat.org</a>
<b>New!</b>	June 9-11, 2015 Berlin, GERMANY	<b>11th IAA Low-Cost Planetary Mission Conference (LCPM-11)</b> <a href="http://www.dlr.de/LCPM11">http://www.dlr.de/LCPM11</a>
	June 15-19, 2015 Cologne, GERMANY	<b>12th International Planetary Probe Workshop (IPPW-12)</b> <a href="http://www.planetaryprobe.eu/">http://www.planetaryprobe.eu/</a>
	June 15-19, 2015 Chicago, IL, USA	<b>Astrobiology Science Conference 2015 (Abscicon)</b> <a href="http://www.hou.usra.edu/meetings/abscicon2015/">http://www.hou.usra.edu/meetings/abscicon2015/</a>

### Third Quarter, 2015

	July 27-31, 2015 Berkeley, CA, USA	<b>Annual Meetings of the Meteoritical Society</b> <a href="http://metsoc2015.ssl.berkeley.edu/">http://metsoc2015.ssl.berkeley.edu/</a>
<b>New!</b>	August 4-6, 2015 Pasadena, CA, USA	<b>2nd Landing Site Workshop for the Mars 2020 Rover</b> <a href="http://marsnext.jpl.nasa.gov/">http://marsnext.jpl.nasa.gov/</a>
<b>New!</b>	August 16-21, 2015 Prague, CZ	<b>Goldschmidt 2015</b> <a href="http://goldschmidt.info/2015/">http://goldschmidt.info/2015/</a>
<b>New!</b>	September 16-17, 2015 Irvine, CA, USA	<b>NRC's Committee on Astrobiology and Planetary Science (CAPS)</b>
	September 27-October 2, 2015 Nantes, FRANCE	<b>European Planetary Science Congress</b> <a href="http://www.epsc2015.eu/home.html">http://www.epsc2015.eu/home.html</a>

### Fourth Quarter, 2015

	November 1-4, 2015 Baltimore, MD, USA	<b>Geological Society of America Annual Meeting</b>
	November 8-13, 2015 National Harbor, MD, USA	<b>47th Meeting of the American Astronomical Society Division for Planetary Sciences (DPS 2015)</b>
	November 9-13, 2015 Foz do Iguacu, BRAZIL	<b>2nd Symposium of the Committee on Space Research (COSPAR 2015): Water and Life in the Universe</b>
	December 14-18, 2015 San Francisco, CA, USA	<b>AGU Fall Meeting</b>

### 2016

	January 7, 2016	<b>20-Day ExoMars Launch Period Opens</b>
	March 4, 2016	<b>20-Day Insight Launch Window Opens</b>
<b>New!</b>	March 29-31, 2016 Washington DC, USA	<b>NRC's Committee on Astrobiology and Planetary Science (CAPS)</b>
	July 30-August 7, 2016 Istanbul, TURKEY	<b>41st Scientific Assembly of the Committee on Space Research (COSPAR 2016) and Associated Events</b> <a href="http://www.cospar-assembly.org">http://www.cospar-assembly.org</a>
	August 7-12, 2016 Berlin, GERMANY	<b>Annual Meetings of the Meteoritical Society</b>
<b>New!</b>	September 14-15, 2016 Irvine, CA, USA	<b>NRC's Committee on Astrobiology and Planetary Science (CAPS)</b>
	September 28, 2016	<b>Insight Arrival at Mars</b>
	October 16-21, 2016 Pasadena, CA, USA	<b>Joint DPS-EPSC Meeting</b>
	October 19, 2016	<b>ExoMars Arrival at Mars</b>

## Seasons on Mars

	MY32	MY33	MY34
<b>Start of Northern Spring / L<sub>s</sub> 0</b>	7/31/2013	6/18/2015	5/05/2017
<b>Start of Northern Summer / L<sub>s</sub> 90</b>	2/15/2014	1/03/2016	11/20/2017
<b>Start of Northern Autumn / L<sub>s</sub> 180</b>	8/17/2014	7/04/2016	5/22/2018
<b>Start of Northern Winter / L<sub>s</sub> 270</b>	1/11/2015	11/28/2016	10/16/2018

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

Good Friday	4/18/2014	4/3/2015	4/6/2016	4/14/2017
Rosh Hashanah	9/25/2014	9/14/2015	9/16/2016	9/20/2017
Yom Kippur	10/4/2014	9/23/2015	9/25/2016	9/29/2017
(Note that Jewish holidays start at sundown the previous evening)				
Thanksgiving Day, U.S.	11/27/2014	11/26/2015	11/22/2016	11/23/2017
Thanksgiving Day, Canada	10/13/2014	10/12/2015	10/8/2016	10/9/2017
Christmas Day	12/25/2014	12/25/2015	12/25/2016	12/25/2017

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

Carla de la Paz at [paz@jpl.nasa.gov](mailto:paz@jpl.nasa.gov), 818-354-3160.

All announcements listed in this newsletter will be posted on the MEPAG website, available at:

<http://mepag.jpl.nasa.gov>