

# Mars Exploration Science Monthly Newsletter

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

January 2015

## 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. ohn 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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### **Student Travel Grants available for upcoming Mars meetings**

Student travel grants are available for two workshops in May: (1) the [Workshop on Issues in Crater Studies and the Dating of Planetary Surfaces](#) (May 19-22 in Laurel, MD; due March 5) and (2) the [Fourth International Planetary Dunes Workshop](#) (2) (May 19-22 in Boise, ID; due March 5). These opportunities are open to undergraduate and graduate students with Mars-related research interests, who are US citizens or legal residents. Information and the applications are posted on the MEPAG site:

<http://mepag.nasa.gov/student.cfm?expand=student>. Questions should be directed to Serina Diniega: [serina.diniega@jpl.nasa.gov](mailto:serina.diniega@jpl.nasa.gov).

## Planetary GIS Workshop

May 5-7, 2015 at ESAC, Madrid, Spain

ESA and its Planetary Science Archive (PSA) User Group are pleased to announce a Planetary GIS Workshop that will be held on May 5-7 2015 at ESAC (Madrid, Spain). The following broad areas will be presented and discussed:

- scientific needs and uses (existing, new, cross-disciplinary);
- existing technical solutions;
- open problems and areas suitable to improvement

The workshop aims at targeting geospatial data users and producers in a broad sense. An informal combination of presentation, hands-on and discussion sessions is envisaged. Abstracts for presentations can be submitted after January 15th. For more details, visit the workshop's web page: <http://www.rssd.esa.int/index.php?project=PSA&page=gisws>

Organizing committee: Angelo Pio Rossi (convener), Nicolas Manaud (convener), Stephan van Gassel, Trent Hare, Baptiste Cecconi, Dave Heather, Santa Martinez, Jonathan McAuliffe, Juan Gonzalez, Alba Alcol (secretary) and the PSA User Group.

## User Workshop for Mars CHEMCAM/LIBS Data at LPSC

The Woodlands, TX; date TBD

ChemCam on Curiosity provides a large and varied geochemical dataset available for the planetary community including laser-induced breakdown spectroscopy (LIBS), passive VIS reflectance spectra, and the highest resolution remote micro-images (RMI) from the rover. More than 200,000 spectra and over 3,000 images from ChemCam available at the Planetary Data System (PDS). More than 30 submitted papers have included results from this data. A LIBS instrument is also being developed for the Mars 2020 mission.

A 2-1/2-hour workshop will be held during the week of the Lunar and Planetary Science Conference (March 15-20, The Woodlands, TX) for community members interested in using this dataset. In the workshop we will describe the LIBS technique as used on ChemCam and data processing for the levels 1 and 2 provided in the PDS, and will provide updates on the latest calibration data. We are targeting Wednesday evening at 6 pm, subject to conference scheduling. Please see the ChemCam website for updates: <http://msl-chemcam.com>. The contact is Roger Wiens ([rwiens@lanl.gov](mailto:rwiens@lanl.gov)). The ChemCam data can be found at <http://pds-geosciences.wustl.edu/missions/msl/chemcam.htm>. Presentation materials will also be posted on the PDS.

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

Due	Project
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
March 5, 2015	<b>Workshop on Issues in Crater Studies and the Dating of Planetary Surfaces</b> Abstract deadline <b>4th International Planetary Dunes Workshop</b> Abstract deadline
March 12, 2015	<b>European Geosciences Union General Assembly 2015</b> Early registration deadline
March 16, 2015	<b>Venus Science Priorities Workshop for Laboratory Measurements and Instrument Definition</b> Early registration deadline

## Upcoming Conferences and Workshops

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>
	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>
<b>Corrected</b>	February 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>
	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>
	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>
<b>New!</b>	March 24-26, 2015 Moffett Field, CA, USA	<b>Planetary Protection Knowledge Gaps for Human Extraterr. Missions Workshop</b> <a href="http://www.hou.usra.edu/meetings/ppw2015/">http://www.hou.usra.edu/meetings/ppw2015/</a>
	March 31-April 2, 2015 Washington DC, USA	<b>NRC's Committee on Astrobiology and Planetary Science (CAPS)</b>
Second Quarter, 2015		
	April 7-8 2015 Hampton, VA, USA	<b>Venus Science Priorities Workshop for Laboratory Measurements and Instrument Definition</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>
<b>New!</b>	May 5-6, 2015 Pasadena, CA, USA	<b>Improving Space Operations Workshop</b> <a href="https://info.aiaa.org/tac/SMG/SOSTC/Lists/Calendar/DispForm.aspx?ID=53&amp;Source=https%3A%2F%2Finfo%2Eaiaa%2Eorg%2Ftac%2FSMG%2FSOSTC%2Fdefault%2Easpx">https://info.aiaa.org/tac/SMG/SOSTC/Lists/Calendar/DispForm.aspx?ID=53&amp;Source=https%3A%2F%2Finfo%2Eaiaa%2Eorg%2Ftac%2FSMG%2FSOSTC%2Fdefault%2Easpx</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 Laurel, 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>

### Second Quarter, 2015 - cont.

<b>New!</b>	June 1-4, 2015 Kazan, RUSSIA	<b>Second IAPS Scientific Assembly: Observation and Understanding of the Moon, moons &amp; Planets</b> <a href="http://kpfu.ru/astrogeokazan-iaps-2015.html">http://kpfu.ru/astrogeokazan-iaps-2015.html</a>
	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 (Abscon)</b> <a href="http://www.hou.usra.edu/meetings/abscon2015/">http://www.hou.usra.edu/meetings/abscon2015/</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>
	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>
	August 16-21, 2015 Prague, CZ	<b>Goldschmidt 2015</b> <a href="http://goldschmidt.info/2015/">http://goldschmidt.info/2015/</a>
	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> <a href="http://dps.aas.org/meetings/current">http://dps.aas.org/meetings/current</a>
	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>

### First and Second Quarters, 2016

	January 7, 2016	<b>20-Day ExoMars Launch Period Opens</b>
	March 4, 2016	<b>20-Day Insight Launch Window Opens</b>
	March 29-31, 2016 Washington DC, USA	<b>NRC's Committee on Astrobiology and Planetary Science (CAPS)</b>
<b>New!</b>	April 4-8, 2016 Oxford, UK	<b>International Venus Conference</b> <a href="http://venus2016.uk/">http://venus2016.uk/</a>

## Third and Fourth Quarters, 2016

	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>
	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	4/3/2015	3/25/2016	4/14/2017	3/30/2018
Rosh Hashanah	9/14/2015	9/16/2016	9/20/2017	9/10/2018
Yom Kippur	9/23/2015	9/25/2016	9/29/2017	9/19/2018
(Note that Jewish holidays start at sundown the previous evening)				
Thanksgiving Day, Canada	10/12/2015	10/8/2016	10/9/2017	10/8/2018
Thanksgiving Day, U.S.	11/26/2015	11/22/2016	11/23/2017	11/22/2018
Christmas Day	12/25/2015	12/25/2016	12/25/2017	12/25/2018

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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>

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