

Mars Exploration Science Monthly Newsletter

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

May 2016

Mars Science News

Feedback requested by May 9 about restructured PSD R&A Programs

Mars community, your feedback is requested! Jeff Johnson, MEPAG Chair, has been asked by the Space Studies Board (SSB) for the Mars community's perspective on the efficacy of NASA's Planetary Science Division (PSD) Research and Analysis (R&A) programs, following the 2014 restructuring. This committee is responding to NASA's request for an examination of the recent reorganization of NASA's PSD R&A programs. The committee will hold its first meeting at the National Academy of Sciences on May 12-13, and has invited representatives from all of the PSD analysis groups (including the MEPAG Chair).

In particular, the committee has been tasked to address the following questions:

- Are the PSD R&A program elements appropriately linked to, and do they encompass the range and scope of activities needed to support the NASA Strategic Objective for Planetary Science and the Planetary Science Division Science Goals, as articulated in the 2014 NASA Science Plan?
- Are the PSD R&A program elements appropriately structured to develop the broad base of knowledge and broad range of activities needed both to enable new spaceflight missions and to interpret and maximize the scientific return from existing missions?

To provide Jeff with sufficient information for the May meeting, we have created a web survey to facilitate the collection of feedback from the MEPAG community (<https://docs.google.com/forms/d/1jlek-3leOfBXe6juOx-hqT3iLhiGEsmIbjS7Y3A2PgM/viewform>). When sending in your feedback, please consider that in conducting its task, the SSB review committee:

- Will conduct its review in the context of current budgetary realities that have differed from projections assumed prior to the release of the most recent planetary science decadal survey;
- Will not examine the PSD R&A programs as they were prior to the restructuring; and
- Will not comment on the strategic science goals and objectives of PSD, SMD, or NASA.

Please answer the survey questions by **May 9**. We include the option of providing your name within the survey, in case we need to contact a respondent. But all responses will be confidential, and any included in Jeff's presentation will be without attribution.

Upcoming Martian Moons Exploration (MMX) mission SALMON-2

Community Announcement expected: June 1, 2016

NASA's Science Mission Directorate (SMD) intends to release a Program Element Appendix (PEA) to the Stand Alone Missions of Opportunity Notice (SALMON-2) on or about June 1, 2016. This PEA will solicit proposals for one instrument investigation to be implemented on the Martian Moons eXploration (MMX) mission, which is being developed by the Japan Aerospace Exploration Agency (JAXA) for launch in 2022. NASA SMD intends to solicit proposals for one Principal Investigator (PI)-led science investigation involving the development of a Neutron and Gamma-Ray Spectrometer instrument, to be integrated with and deployed on the MMX spacecraft. Questions regarding this announcement may be addressed to: Dr. Thomas S. Statler, MMX Program Scientist (Thomas.S.Statler@nasa.gov, with the subject line "MMX PEA" (without quotation marks)).

Mars Water In-Situ Planning (M-WIP) Report is available

The Mars Water In-Situ Planning (M-WIP) team, a community-based study team jointly chartered by HEOMD and SMD, has prepared an analysis of what it would take to generate a water supply sufficient to meet the hypothetical demands estimated for human missions to the surface of Mars. The information and relationships are relevant to Mars strategic planning, and the final report is now posted on the MEPAG website under "Working Group and SMD Reports": <http://mepag.nasa.gov/reports.cfm?expand=smd>.

May 2016

2016 NASA Planetary Volcanology Workshop: Analogs to Volcanic Features and Processes in Satellite and Rover Images

July 12-19, Kīlauea Volcano, Hawai'i

This field workshop is sponsored by NASA, and will focus on volcanic features analogous to those on Mars that have been imaged recently by MOC, THEMIS, HRSC, HiRISE, and the MER and MSL rovers, comparing their field appearance to their appearance in remotely-sensed images. The workshop will be almost exclusively field-based, with excursions (by vehicle and by foot) to locations on Kīlauea and Mauna Loa that are particularly instructive with regard to their value as Mars analogs. This opportunity is intended for NASA-funded senior graduate students who already have a background in volcanology and are currently working on Mars volcanology problems, but are in need of field experience on real volcanoes.

All expenses, including travel, will be covered, although it will be done on a reimbursement basis. US citizenship is not required, but all applicants must be students/employees at a US University/Institution, and their current study or work must be funded by a NASA planetary research program. Full application instructions and eligibility information is listed at http://www.lpi.usra.edu/planetary_news/2016/04/04/announcing-the-2016-nasa-planetary-volcanology-workshop/, and application materials and questions should be sent to Sarah Fagents: fagents@higp.hawaii.edu.

SPICE Training Announcement

September 12-15 in Madrid, SPAIN

The ESAC SPICE Service and the Navigation and Ancillary Information Facility (NAIF) will conduct a SPICE observation geometry training class on September 12-15, 2016 in Madrid, SPAIN. SPICE at ESAC is described at: <http://www.cosmos.esa.int/web/spice/home>. The class is free and open to all professionals and students involved in Solar System exploration. Further information about the class and the class registration form are found at: <http://www.cosmos.esa.int/web/spice/training-class-september-2016>. Registration is due by June 30, 2016.

NASA Planetary Science Facilities Review Summary

NASA's Planetary Science Division (PSD) is evolving how it deals with multi-user facilities. As part of this activity, PSD recently performed a review of currently funded facilities, how they are working, and the extent to which they serve the science needs of the broader planetary community. The summary document from this review can be found at <http://www.lpi.usra.edu/psd-facilities/>. Questions on the Facilities Review may be directed to Doris Daou at doris.daou-1@nasa.gov.

Third Mars Affordability and Sustainability Workshop Report now available

The Report of the Third Mars Affordability and Sustainability Workshop, an event organized by Explore Mars, Inc. and the American Astronautical Society to continue to build community consensus on the future of human space exploration, is now available. Workshop attendees were assembled to compare potential Mars mission architectures and strategies, discuss science objectives achievable by these architectures, and examine how to design and advance a humans-to-Mars program that is fiscally and politically sustainable. The report from this workshop includes observations, findings, and recommendations, and is available at <http://www.exploremars.org/affording-mars>.

Near-term Due Dates (next three months, cont'd on next page)

Due	Project
May 2	Biosignature Preservation and Detection in Mars Analog Environments , Registration deadline
May 10	Japan Geoscience Union Meeting , Early registration deadline.
May 17	2016 Planetary Geologic Mappers' Meeting , Abstract deadline
May 24	Annual Meetings of the Meteorological Society , Abstract deadline
May 26	26th Goldschmidt Conference , Early Registration deadline.

Due	Project
June 3	2016 Planetary Geologic Mappers' Meeting . Registration deadline
June 23	Joint DPS-EPSC Meeting , Abstract deadline 6th International Conference on Mars Polar Science and Exploration , Abstract deadline
June 30	Annual Meetings of the Meteoritical Society , Registration deadline
July 12	GSA Meeting , Abstract 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 Meredith Cosby (Meredith.A.Cosby@jpl.nasa.gov).
- If no deadline is noted: it is usually 90days in advance — sometimes further in advance if the conference is "Heavily Attended."
- Please do not assume our noting of NCTS# is complete. If you are unsure if an event is a conference or not, or when the forecasting deadline may be, please consult with your NASA Center conference forecasting/travel unit.

Second Quarter, 2016

	May 16-19, 2016 Lake Tahoe, NV, USA	Biosignature Preservation and Detection in Mars Analog Environments http://www.hou.usra.edu/meetings/biosignature2016/ , NCTS# 24667-16 (forecast by Feb 12)
	May 17-19, 2016 Washington, DC, USA	Humans to Mars Summit http://h2m.exploremars.org/ , NCTS# 24381-16
	May 18-19, 2016 Amsterdam, NETHERLANDS	4th European Lunar Symposium http://sservi.nasa.gov/els2016/
	May 18-19, 2016 Moscow, ID, USA	68th Annual Meeting of the Rocky Mountain GSA http://www.geosociety.org/sections/rm/2016mtg/index.htm <i>Sessions: (1) Planetary Science - Insights from Remote Sensing, Field, and the Laboratory; (2) Megafloods, Paleohydrology, and Fluvial Processes on Earth and Beyond - In Recognition of the Scientific Contributions of Victor R. Baker; (3) Volcanic Hazards - Products, Processes, and Perspectives</i>
	May 22-26, 2016 Chiba, JAPAN	Japan Geoscience Union Meeting http://www.jpгу.org/meeting_e2016/index.htm Session P-PS02: Mars
	May 24-25, 2016 Oxford, UK	iCubeSat 2016, the 5th Interplanetary CubeSat Workshop http://icubesat.org/
	May 24-26, 2016 Houston, TX, USA	New Views of the Moon 2 Workshop http://www.hou.usra.edu/meetings/newviews2016/
	June 5-8, 2016 Atlanta, GA, USA	53rd Annual Meeting of the Clay Minerals Society http://conferences.illinois.edu/CMS2016/index.html Session: <i>Clay Minerals on Mars and Other Planetary Bodies</i>
	June 7-9, 2016 Golden, CO, USA	7th Joint Meeting of Space Resources Roundtable and Planetary & Terrestrial Mining Sciences Symposium http://www.isruinfo.com/

Second Quarter, 2016 — cont.

New!	June 13-15, 2016 Flagstaff, AZ, USA	2016 Planetary Geologic Mappers' Meeting http://www.hou.usra.edu/meetings/pgm2016/
	June 13-17, 2016 Laurel, MD, USA	International Planetary Probe Workshop (IPPW-13) http://ippw2016.jhuapl.edu/index.php , NCTS #24380-16 <i>additional short course offered June 11-12, 2016</i>
	June 20-21, 2016 London, UK	Martian Gullies and their Earth Analogues https://www.geolsoc.org.uk/martiangullies , NCTS #24907-16
New!	June 20-21, 2016 IFSI, Frascati, ITALY	Mars Express Science Working Team Meeting Contact Dmitri Titov, Dmitri.titov@esa.int
	June 20-24, 2016 Potsdam, GERMANY	11th International Conference on Permafrost (ICOP) 2016 http://icop2016.org/index.php/program Session #16 "Planetary Permafrost and Earth Analogues"
New!	June 23, 2016 Pasadena, CA, USA	Mars Odyssey PSG Contact Jeff Plaut, Jeffrey.j.plaut@jpl.nasa.gov
	June 28-30, 2016 Laurel, MD, USA	14th Meeting of the NASA Small Bodies Assessment Group (SBAG) http://www.lpi.usra.edu/sbag/
	June 26-July 1, 2016 Yokohama, JAPAN	26th Goldschmidt Conference http://goldschmidt.info/2016/index <i>Session 02h: Geochemical Evolution of the Martian Surface and Interior</i>

Third Quarter, 2016

	July 18-19, 2016 Moffett Field, CA, USA	Third International Conference on the Exploration of Phobos and Deimos http://phobos-deimos.arc.nasa.gov/ , NCTS #24799-16
	July 25-29, 2016 Pasadena, CA, USA	NASA's 28th Annual Planetary Science Summer School https://pscischool.jpl.nasa.gov/index.cfm
	July 27-29, 2016 Seattle, WA, USA	Exoplanet Biosignatures Workshop Without Walls and ExoPAG SAG 16 Activity http://nai.nasa.gov/calendar/workshop-without-walls-exoplanet-biosignatures/ , NCTS#25456-16
	July 30-August 7, 2016 Istanbul, TURKEY	41st Scientific Assembly of the Committee on Space Research (COSPAR 2016) and Associated Events http://www.cospar-assembly.org
	August 7-12, 2016 Berlin, GERMANY	Annual Meetings of the Meteoritical Society http://www.metsoc-berlin.de/
New!	August 17-19, 2016 Providence, RI, USA	7th Planetary Crater Consortium Meeting http://www.planetarycraterconsortium.nau.edu/
	September 5-9, 2016 Reykjavik, ICELAND	6th International Conference on Mars Polar Science and Exploration http://www.hou.usra.edu/meetings/marspolar2016/ , NCTS# 23841-16
	September 14-15, 2016 Irvine, CA, USA	NRC's Committee on Astrobiology and Planetary Science (CAPS)

Third Quarter, 2016—cont'd

	September 25-28, 2016 Denver, CO, USA	GSA Meeting http://community.geosociety.org/gsa2016/home , NCTS # 24946-16
	September 26-30, 2016 Guadalajara, MEXICO	67th International Astronautical Congress http://www.iafastro.org/events/iac/iac2016/

Fourth Quarter, 2016

	October 16-21, 2016 Pasadena, CA, USA	Joint DPS-EPSC Meeting http://aas.org/meetings/dps48 , NCTS #25341-17
	October 19, 2016	2016 ExoMars (TGO and EDM) Arrival at Mars
	December 12-16, 2016 San Francisco, CA, USA	AGU Fall Meeting http://fallmeeting.agu.org/2016/ , NCTS #25415-17

2017

	March 28-30, 2017 Washington, DC, USA	NRC's Committee on Astrobiology and Planetary Science (CAPS)
	September 13-14, 2017 Washington, DC, USA	NRC's Committee on Astrobiology and Planetary Science (CAPS)

Seasons on Mars

	MY33	MY34	MY35
Start of Northern Spring / L_s 0	6/18/2015	5/05/2017	3/23/2019
Start of Northern Summer / L_s 90	1/03/2016	11/20/2017	10/08/2019
Start of Northern Autumn / L_s 180	7/04/2016	5/22/2018	4/08/2020
Start of Northern Winter / L_s 270	11/28/2016	10/16/2018	9/02/2020

Special holidays to consider when scheduling conferences/workshops/meetings

Good Friday	3/25/2016	4/14/2017	3/30/2018	4/19/2019
Rosh Hashanah	10/03/2016	9/21/2017	9/10/2018	9/30/2019
Yom Kippur	10/12/2016	9/30/2017	9/19/2018	10/09/2019

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

Thanksgiving Day, Canada	10/10/2016	10/09/2017	10/08/2018	10/14/2019
Thanksgiving Day, U.S.	11/24/2016	11/23/2017	11/22/2018	11/28/2019
Christmas Day	12/25/2016	12/25/2017	12/25/2018	12/25/2019

Editors

Meredith Cosby	Meredith.A.Cosby@jpl.nasa.gov	818-354-0226
Serina Diniega	Serina.Diniega@jpl.nasa.gov	818-393-1487
David Beaty	David.Beaty@jpl.nasa.gov	818-354-7968

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

Meredith Cosby at Meredith.A.Cosby@jpl.nasa.gov.

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

-
- If you wish to withdraw from the electronic mailing list this newsletter is sent out to, please send an email from your email account to mepag-removesignup@jpl.nasa.gov.
 - To be added to this list and receive this monthly newsletter and other Mars Science announcements, or to update your MEPAG directory information (which contains the email list used for sending out this newsletter), please fill out the online form: <http://goo.gl/forms/WilmhPIM9V> (also linked on the MEPAG website <http://mepag.nasa.gov/>, under Updates).