

Mars Exploration Science Monthly Newsletter

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

April 2014

Mars Science News

29th MEPAG meeting

May 13-14 at the Crystal City Marriott in the Washington, DC area

There have been many developments in Mars exploration over the past year: Discoveries by Curiosity and other operating Mars missions, the release of the AO and the receipt of instrument proposals for the 2020 Mars Rover, the launches of NASA's MAVEN and ISRO's MOM missions to Mars, the implications for Mars and Planetary Science of the passage of the FY14 budget and release of the President's proposed FY15 budget, and the developing vision of human exploration at Mars. This meeting will report on the implications of these events as well as the overall status of Mars exploration. Further, there will be a report from the ongoing MEPAG Special Regions Science Analysis Group. The First Circular has been posted:

http://mepag.nasa.gov/meeting/2014-05/MEPAG_2014_May_1st_circ_V3_SMD_ASH.pdf

First Landing Site Workshop for the 2020 Mars Rover Mission

May 14-16 at the Crystal City Marriott in the Washington, DC area (following the 29th MEPAG meeting)

The purpose of the first 2020 Landing Site Workshop will be to: 1) begin to identify and evaluate potential landing sites best suited to achieving science objectives of the 2020 Rover Mission within the constraints imposed by engineering requirements, planetary protection requirements, and the necessity of ensuring a safe landing; and 2) provide input to NASA and the 2020 Project at JPL on the relative importance of including any enhanced EDL capabilities on the mission. For more information and for registration, see: <http://marsnext.jpl.nasa.gov/>.

Draft Agendas

5/13, am - MEPAG meeting

Status of Mars exploration by NASA and other space agencies

5/13, pm - MEPAG meeting

Interaction with the Human program (HEOMD)

Report from the MEPAG Special Regions SAG

5/14, am - MEPAG meeting

Follow-up questions and discussion from topics on Day 1

Report on NASA and ESA landing site selection activities

5/14, pm - 2020 Landing Site Workshop

The process for selecting the Mars 2020 mission landing site

Overview of the Mars 2020 Mission

Mars 2020 Engineering Constraints

Overview of the Science

5/15, am - 2020 Landing Site Workshop

Habitable environments in the subsurface

Science presentations & discussion about candidate landing

sites: Mawrth Vallis, Oxia Planum, Nili Fossae, NE Syrtis

Major, Nili Patera, circum-Hellas region, Valles Marineris, SW

Melas Basin, Coprates Chasma

5/15, pm - 2020 Landing Site Workshop

Science presentations & discussion about candidate landing

sites: Hypanis Delta, Jezero Delta, Ladon Valles, Sabrina Vallis,

Eridania Basin, Kashira Crater, E Margaritifer Terra,

Hadriacus Palus

5/16, am - 2020 Landing Site Workshop

Science presentations and discussion about candidate landing

sites: Gusev Crater, Columbia Hills, Aeolis

Discussion and Initial Ranking of Sites

To make a reservation at the Crystal City Marriott, for either event

Call (800) 228-9290 and refer to block "MEPAG Face to Face" or "mffmffa", or reserve online at http://www.marriott.com/meeting-event-hotels/group-corporate-travel/groupCorp.mi?resLinkIdData=MEPAG%20Face%20to%20Face^wascc%60mffmffa%60224%60USD%60false%605/12/14%605/16/14%604/21/14&app=resvlink&stop_mobi=yes

Eighth International Mars Conference

July 14-18, 2014 at the California Institute of Technology, Pasadena, CA

As of 2014, we will have completed a remarkable and unparalleled fifteen years of concentrated scientific exploration of the Red Planet. This period includes eight successful missions (1996 Mars Global Surveyor, 1996 Mars Pathfinder, 2001 Mars Odyssey, 2003 Mars Exploration Rovers, 2003 Mars Express, 2005 Mars Reconnaissance Orbiter, 2007 Mars Phoenix, and 2011 Mars Science Laboratory), as well as telescopic observations from Earth, studies of martian meteorites, and a variety of numerical and laboratory modeling activities. Two additional missions will be en-route to Mars at the time of the conference (NASA's 2013 MAVEN and ISRO's 2013 Mars Orbiter Mission), and several other missions are actively under development for launch during the period 2016-2020. The Eighth International Mars Conference will be an ideal time to step back and summarize our current understanding of Mars, to consolidate our primary paradigms for Martian processes and history, and to refocus the primary scientific questions that remain in front of us.

We encourage Mars scientists from all scientific fields to plan to attend. The first four days of the conference will consist of morning and afternoon oral sessions organized around topical themes, along with late afternoon poster sessions of broader scope. The final day will consist of presentations and discussion focused on the synthesis of the ideas presented.

The Second Announcement has been posted: <http://www.hou.usra.edu/meetings/8thmars2014/>. **Abstracts are due April 24, 2014.** In accordance with new conference guidelines issued by NASA, the meeting will not charge a registration fee. We will have the capability for on-site registration, but we strongly encourage **advance registration by June 13, 2014** — we will base our final logistical preparations, including the printing of conference materials, based on the count at that point. This is a Domestic Heavily Attended Conferences (DHAC), so those that need to forecast travel (via the NCTS/JPL conference tools) should

Special Mars Session at GSA meeting

MicroMars to MegaMars: Integration of Surface and Orbital Investigations

A special session at the Geological Society of America Meeting; October 19-22, Vancouver, BC, Canada

Whereas on Earth the study of geology evolved from one of field work to incorporation of remote sensing, that of Mars is the reverse, with orbital-based data only complemented by surface investigations from rovers in the last 10+ years. The merging of these datasets has yielded profound new understandings of the geologic history and modern processes on Mars. These include studies of mineralogy, stratigraphy, structural geology, surface dating, landscape modification rates, and many other research areas. This session seeks abstracts that incorporate data from surface (MSL, MER, etc.) and orbital (MRO, MEX, Odyssey, etc.) missions that have increased our understanding of Martian geology.

Session organizers: Nathan Bridges (nathan.bridges@jhuapl.edu), Alfred McEwen (mcewen@lpl.arizona.edu), and David Rubin (geology.dr@gmail.com).

Abstracts are due July 29, 2014.

Photogrammetric Processing of Planetary Stereo Imagery using SOCET SET®

April 29-May 1, 2014 at the Astrogeology Science Center of the USGS, Flagstaff, AZ.

The Planetary Photogrammetry Guest Facility at the Astrogeology Science Center of the U.S. Geological Survey would like to announce a Call for Participation for a training opportunity on April 29 - May 1, 2014, on Photogrammetric Processing of Planetary Stereo Imagery using SOCET SET®. **The training is free to participants**, and will cover end-to-end, hands-on photogrammetric procedures for surface extraction from Mars Reconnaissance Orbiter HiRISE image pairs. The hands-on training will include ISIS preprocessing, SOCET SET import of image and reference data, control point selection, orientation procedures, triangulation and bundle adjustment, manual and automated surface extraction of digital terrain models (DTM), editing, and data export.

If you are interested in participating in this opportunity, please send an email to [Dr. Raad Saleh \(PlanetaryPhotogrammetry@usgs.gov\)](mailto:Dr.Raad.Saleh@usgs.gov) with the following specific information: your name, title, affiliation, address, full contact information, and a short statement describing your interest in the training. Note that seating for this session is very limited, so please express your interest as soon as possible.

Near-term Due Dates (next three months)

Due	Project
April 14th, 2014	ASCE Earth and Space 2014, Engineering for Extreme Environments Abstract deadline
April 15th, 2014	48th ESLAB Symposium: New Insights to Volcanism Across the Solar System Early registration deadline Eighth International Conference on Aeolian Research (ICAR VIII) Abstract and early registration deadline
April 18th, 2014	Venus Exploration Targets Workshop Early registration deadline
April 24th, 2014	8th International Conference on Mars Abstract deadline
April 30th, 2014	ISC 2014 Sedimentology at the Crossroads of New Frontiers Abstract deadline
May 6th, 2014	European Planetary Science Congress Abstract deadline
May 7th, 2014	6th Alfven Conference: Plasma interaction with solar system objects: anticipating Rosetta, Maven and Mars Orbiter Mission Abstract and early registration deadline
May 16th, 2014	48th ESLAB Symposium: New Insights to Volcanism Across the Solar System Late abstract submission Deadline (for poster)
May 17th, 2014	40th COSPAR 2014 and Associated Events Early registration deadline
May 27th, 2014	Workshop on Planetary Volcanism Registration deadline
June 1st, 2014	ISC 2014 Sedimentology at the Crossroads of New Frontiers Early registration deadline
June 13th, 2014	8th International Conference on Mars Online registration deadline (no-fee; on-site available)
June 30, 2014	Origins 2014 Registration deadline (on-site available)

Upcoming Conferences and Workshops

Second Quarter, 2014		
	April 22-24, 2014 Washington, DC USA	Humans to Mars Summit h2m2014.exploremars.org
NEW!	April 27-May 2, 2014 Vienna, AUSTRIA	European Geosciences Union General Assembly 2014 http://www.egu2014.eu/
	April 28-May 1, 2014 Baltimore, MD, USA	Habitable Worlds Across time and Space http://www.stsci.edu/institute/conference/habitable-worlds
NEW!	May 12-15, 2014 Madrid, SPAIN	Venus Express VIRTIS and VMC Data Workshop http://www.rssd.esa.int/index.php?project=PSA&page=vex_workshop
	May 13-14, 2014 Washington, DC USA	Mars Exploration Analysis Group (MEPAG) Meeting http://mepag.nasa.gov/meetings.cfm
		First Landing Site Workshop for the 2020 Mars Rover Mission http://marsnext.jpl.nasa.gov/
	May 17-21, 2014 College Station, TX, USA	Clay Minerals Society Meeting https://cms2014.tamu.edu/ , Special Session - Martian Clays
	May 19-21, 2014 Houston, TX, USA	Venus Exploration Targets Workshop http://www.hou.usra.edu/meetings/venus2014/
	May 20-22, 2014 Bergen, NORWAY	Biosignatures Across Space and Time http://www.nordicastrobiology.net/Biosignatures2014/

Second Quarter, 2014

	May 26-31, 2014 Nice, FRANCE	International interdisciplinary workshop on: Accretion and early differentiation of the terrestrial planets http://www.accrete.uni-bayreuth.de/?page=workshops
	May 28-30, 2014 Houston, TX, USA	Workshop on Planetary Volcanism http://www.hou.usra.edu/meetings/volcanism2014/
	June 16-21, 2014 Noordwijk, NETHERLANDS	48th ESLAB Symposium: New Insights to Volcanism Across the Solar System http://congrexprojects.com/2014-events/48-ESLAB/
	June 16-20, 2014 Pasadena, CA, USA	Annual Planetary Science Summer School, Session I http://pscischool.jpl.nasa.gov

Third Quarter, 2014

	July 6-11, 2014 Nara, JAPAN	ORIGINS 2014 http://www.origin-life.gr.jp/origins2014/index.html
	July 7-11, 2014 London, UK	6th Alfven Conference: Plasma interaction with solar system objects: anticipating Rosetta, Maven and Mars Orbiter Mission https://www.ucl.ac.uk/mssl/planetary-science/alfven-conference
	July 14-18, 2014 Pasadena, CA, USA	Eighth International Conference on Mars http://www.hou.usra.edu/meetings/8thmars2014/
	July 14-18, 2014 Pasadena, CA, USA	Annual Planetary Science Summer School, Session II http://pscischool.jpl.nasa.gov
	July 21-25, 2014 Lanzhou, CHINA	Eighth International Conference on Aeolian Research (ICAR VIII) http://www.2014icar8.com , Special session - Extra-terrestrial Aeolian research
	August 2-10, 2014 Moscow, RUSSIA	40th COSPAR 2014 and Associated Events http://www.cospar-assembly.org/
New!	August 6-8, 2014 Flagstaff, AZ, USA	5th Planetary Crater Consortium Meeting http://www.planetarycraterconsortium.nau.edu/PCCMeeting.htm There is no registration fee. Email Nadine Barlow (Nadine.Barlow@nau.edu) by July 25, 2014, to submit an abstract and declare intention to attend.
	August 11-15, 2014 Pasadena, CA, USA	Annual Planetary Science Summer School, Session III http://pscischool.jpl.nasa.gov
	August 18-22, 2014 Geneva, SWITZERLAND	ISC 2014 Sedimentology at the Crossroads of New Frontiers http://www.sedimentologists.org/meetings/isc Session 038 - Extraterrestrial Sedimentology
	September 7-12, 2014 Centro de Congressos do Estoril, Cascais, PORTUGAL	European Planetary Science Congress http://www.epsc2014.eu/

Third Quarter, 2014

	September 21, 2014	MAVEN Mars Orbit Insertion (MOI)
	September 24, 2014	The Indian Space Research Organisation (ISRO) Mars Orbiter Mission (MOM) Mars Orbit Insertion

Fourth Quarter, 2014

	October 13-16, 2014 Edinburgh, Scotland	EANA 2014 - The 14th European Astrobiology Conference http://www.astrobiology.ac.uk/eana2014/
	October 19-22, 2014 Vancouver, British Columbia, CANADA	Geological Society of America Annual Meeting http://www.geosociety.org/meetings/2014/ , Special Session - MicroMars to MegaMars: Integration of Surface and Orbital Investigations
	October 19, 2014	Comet Siding Spring closest approach to Mars
	October 27-29, 2014 St. Louis, MS, USA	ASCE Earth and Space 2014, Engineering for Extreme Environments http://earthspaceconf2014.mst.edu/
	November 4-7, 2014 Greenbelt, MD, USA	2nd International Workshop on Instrumentation for Planetary Missions (IPM-2014) http://ssed.gsfc.nasa.gov/IPM/
	November 9-14, 2014 Tucson, AZ, USA	46th Meeting of the American Astronomical Society Division of Planetary Sciences (DPS 2014) http://aas.org/meetings/dps46
	December 15-19, 2014 San Francisco, CA, USA	AGU Fall Meeting

2015

	March 2015	46th Lunar and Planetary Science Conference
	November 1-4, 2015 Baltimore, MD, USA	Geological Society of America Annual Meeting

2016

	January 7, 2016	20-Day ExoMars Launch Period Opens
	March 8, 2016	20-Day Insight Launch Window Opens
	September 20, 2016	Insight Arrival at Mars
	October 16, 2016	ExoMars Arrival at Mars

Seasonal Changes on Mars

	MY32	MY33	MY34
Start of Northern Spring / L_s 0	7/31/2013	6/18/2015	5/05/2017
Start of Northern Summer / L_s 90	2/15/2014	1/03/2016	11/20/2017
Start of Northern Autumn / L_s 180	8/17/2014	7/04/2016	5/22/2018
Start of Northern Winter / L_s 270	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, 818-354-3160.

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

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