

Mars Exploration Science Monthly Newsletter

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

Issue: April 2010

Next MEPAG meeting September 30 – October 1, 2010, Monrovia, California.

Mars Science News

Dear Colleagues:

I am pleased to announce that Dr. Dave Des Marais has been appointed to be the Chair of the Mars Exploration Program Analysis Group (MEPAG) and also thereby becomes a representative on the Planetary Science Subcommittee of NASA's Advisory Council. Dave is replacing Jack Mustard, who most capably served our community since July of 2007.

Dave brings a wealth of experience to MEPAG. Dave is well known in the fields of stable isotope biogeochemistry, astrobiology, and planetary sciences. He is involved in MER, MRO and MSL missions and is a PI in NASA's Astrobiology Institute. He is a Fellow of the American Geophysical Union, California Academy of Sciences, Geochemical Society and the European Association of Geochemistry. In addition, Dave has served the community in leading two astrobiology road-mapping teams, several MEPAG Science Analysis Groups, committees of the National Research Council, and serves on the editorial boards of *Geobiology* and *Astrobiology*. Furthermore, Dave is a recipient of the NASA's Outstanding Leadership Medal. We look forward to the continued involvement of the Mars science community in an exciting program of Mars exploration with Dave as your voice and advocate.

At the same time, on behalf of the community, we wish to express our utmost gratitude to Dr. Jack Mustard for his exemplar leadership, keeping Mars science in the forefront of exploration during a difficult period. To name just a few things that have happened during Jack's tenure: NASA's Science Mission Directorate changed its Associate Administrator twice; MSL's cost overruns, descopes, and delay threatened not just other Mars plans, but broader planetary activities; the massive mobilization of the community to educate the NRC's Decadal Survey Panels and Steering Group; the emergent joint Program with ESA; and the re-establishment of Mars Sample Return as the primary focus of near-term Mars exploration. We truly appreciate Jack's ability to step up to the challenge of organizing the community and articulating MEPAG's science goals and objectives to outside committees such as the Planetary Science Subcommittee and the Decadal Survey.

The Mars exploration community has been a model for scientific engagement in the planning process, thanks both to its leadership (including Jack and Dave) and to the many hard-working "Martians". This has been a key aspect of the program of which we are so proud, and which has delivered numerous outstanding discoveries.

Sincerely,

Michael Meyer
Lead Scientist
Mars Exploration Program

Near-term Due Dates (next three months)

Due	Project
4/6	International Venus Conference abstracts deadline
4/8	Nordlingen 2010 abstracts deadline
4/30	IMA2010 deadline for normal registration and final field trip registration
5/3	3rd Annual NASA Lunar Science Forum abstracts deadline
5/10	EPSC 2010 abstracts deadline
5/11	73rd Annual Meeting of the Meteoritical Society abstracts deadline
5/28	ExoClimes 2010 abstracts deadline
6/1	Nordlingen 2010 registration deadline

MEPAG Meeting

A very successful MEPAG meeting was held March 17-18, 2010. The MEPAG Chair's letter to the NASA Advisory Committee, Planetary Science Subcommittee Chair is available on the MEPAG website at http://mepag.jpl.nasa.gov/meeting/mar-10/MEPAG_Mtg-Report-March-2010.pdf

NASA Planetary Science Summer School

NASA is accepting applications from science and engineering post-docs, recent PhDs, and doctoral students for its 22nd Annual Planetary Science Summer School, which will hold two separate sessions this summer (July 19-23 and August 2-6) at the Jet Propulsion Laboratory in Pasadena, California. During the program, student teams will carry out the equivalent of an early mission concept study, prepare a proposal authorization review presentation, present it to a review board, and receive feedback. At the end of the week, students will have a clearer understanding of the life cycle of a robotic space mission; relationships between mission design, cost, and schedule; and the tradeoffs necessary to stay within cost and schedule while preserving the quality of science. Applications are due May 1, 2010. Partial financial support is available for a limited number of individuals. Further information is available at <http://pscischool.jpl.nasa.gov>.

MSL Landing Site Community Workshop

Dear Colleagues:

You are invited to participate in the fourth landing site workshop for the 2011 Mars Science Laboratory (MSL). The workshop will be held in the vicinity of Pasadena, California, on September 27-29, 2010. This workshop is expected to focus on the outstanding science questions and relative merits of the final MSL landing sites remaining under consideration and will begin the process of developing testable hypotheses that can be accomplished at each site using the MSL science payload. We anticipate a final, fifth landing site workshop will be held in the early spring of 2011 and focus mostly on compilation of a detailed set of testable hypotheses.

The process of selecting the MSL landing site is converging. After initial consideration of nearly 60 sites over more than three years, only Eberswalde crater (23.86°S, 326.73°E), Gale crater (4.49°S, 137.42°E) Holden crater (26.37°S, 325.10°E), and Mawrth Vallis (24.01°N, 341.03°E) remain. Each of these sites represents exciting science opportunities for MSL and has been highly rated by the science community. A fifth site may be added to

the list in response to a call made in August 2009, and an initial review in December 2009. A decision on whether to add a fifth site will be made in May 2010 by the MSL Project with input from the MSL Landing Site Steering Committee. Results of that decision will be posted at <http://marsoweb.nas.nasa.gov/landingsites/> and <http://webgis.wr.usgs.gov/msl/>.

Considerable additional work remains regarding evaluation of the merits of the sites relative to the science objectives and capabilities of MSL. This includes refined assessment of depositional setting, definition, interpretation, and accessibility of science targets within and outside of the proposed ellipses, and physical attributes and surface characteristics of the landing sites and traverse paths. We anticipate that the fourth workshop will include sessions with talks emerging from advance studies by the project science and engineering teams as well as those submitted to the workshop from the science community. There will be ample time for open discussion of all of the sites. Details on the workshop and guidelines for requesting a presentation will follow in the second announcement.

All members of the scientific community are encouraged to participate in this important activity. Input from the science community is critical to identification of optimal landing sites for the MSL. We look forward to your continued involvement in these activities!

Sincerely,
John Grant and Matt Golombek
Co-Chairs, Mars Landing Site Steering Committee

Upcoming Conferences and Workshops

Type	Date & Location	Event Information
<i>Second Quarter, 2010</i>		
	April 12-14, 2010 Boulder, Colorado, USA	Decadal Survey Satellites Panel
	April 14-16, 2010 Boulder, Colorado, USA	Decadal Survey Mars Panel
	April 19-23, 2010 El Paso, Texas, USA	First International Conference on Mars Sedimentology and Stratigraphy A week-long conference including a 2-day field trip to look at the Mars analog sedimentary rocks that have filled the western part of the Permian Basin. http://www.lpi.usra.edu/meetings/marssted2010/index.shtml
	April 21-23, 2010 Boulder, Colorado, USA	Decadal Survey Inner Planets Panel
	April 26-28, 2010 Knoxville, Tennessee, USA	Decadal Survey Primitive Bodies Panel
	Update April 26-29, 2010 League City, Texas, USA	Astrobiology Science Conference 2010 http://www.lpi.usra.edu/meetings/abscicon2010/abscicon20101st.shtml
	May 2-7, 2010 Vienna, AUSTRIA	European Geosciences Union (EGU) – General Assembly 1010

	May 3-6, 2010 Monastir, TUNISIA	Astronomical Data Analysis (ADA6) http://www.aset.org.tn/conf/ADA6
	May 4-7, 2010 Noordwijk, NETHERLANDS	Herschel First Results Symposium (ESLAB 2010) http://herschel.esac.esa.int/FirstResultsSymposium.shtml
	May 5-7, 2010 Boston, Massachusetts, USA	Decadal Survey Giant Planets Panel (or Woods Hole, MA)
	May 18-21, 2010 Alamosa, Colorado, USA	Second International Planetary Dunes Workshop: Planetary Analogs – Integrating Models, Remote Sensing, and Field Data http://www.lpi.usra.edu/meetings/dunes2010
	May 24-28, 2010 Breckenridge, Colorado USA	Meteoroids 2010 http://www.cora.nwra.com/Meteoroids2010/
	May 25-26, 2010 Provo, Utah, USA	Io Workshop http://pirlwww.lpl.arizona.edu/~jani/ioworkshop2010/
	May 25-27, 2010 Washington, DC, USA	Decadal Survey Steering Group
	Update May 26, 2010 Pasadena, California USA	Next 2001 Mars Odyssey PSG Jet Propulsion Laboratory Contact Jeff Plaut (plaut@jpl.nasa.gov)
	June 1–August 9, 2010 Houston, Texas, USA	Lunar Exploration Summer Intern Program Hosted by Lunar Planetary Institute (LPI) Contact Dr. David Kring at kring@lpi.usra.edu http://www.lpi.usra.edu/lunar_intern/
	June 2-4, 2010 Kiruna, SWEDEN	Mars Express Science Working Team Meeting Contact Oliver Witasse at owitasse@rssd.esa.int
	June 8-10, 2010 Golden, Colorado, USA	First Joint Meeting of Space Resources Roundtable and Planetary & Terrestrial Mining Sciences Symposium For more information, please visit the SRR web page at: http://www.isruinfo.com/ and open the SRR/PTMSS 1 st Announcement pdf file.
	June 8-12, 2010 Oslo, NORWAY	International Polar Year Oslo Science Conference http://www.ipy-osc.no/
	June 12-13, 2010 Barcelona, SPAIN	Planetary Protection Short Course http://www.planetaryprobe.eu/

	June 13-18, 2010 Knoxville, Tennessee, USA	<p>Goldschmidt Conference http://www.goldschmidt2010.org/ Contact: Hap McSween at mcsween@utk.edu Online registration deadline May 18, 2010</p> <p>Session 01d: The New Mars: Geochemistry of a Neighbor Planet Conveners: Dave Des Marais (NASA Ames) and Scott McLennan (Stony Brook) Keynote: Lisa Pratt (Indiana) Mars is the one other planet in the solar system that apparently had a climate most similar to that of Earth. Mars differentiated very early into a core, mantle and crust; it preserved an ancient geological record that has no parallel on Earth; and it evolved mostly if not completely without plate tectonics. An early hydrological cycle sustained precipitation, streams and lakes. Later, volcanism, impacts, groundwater, and ice interacted at least locally. Liquid water participated in rock weathering reactions, such as iron and sulfur oxidation, that created distinctive weathering regimes and potentially sustained life. Methane in the atmosphere apparently requires a strong subsurface source(s). Conditions therefore could have supported life sometime in the past and perhaps could even sustain it today. This session will highlight recent geochemical investigations that are unveiling "the new Mars" and will lead ultimately to determining its geochemical evolution and whether life ever developed.</p>
	June 14-16, 2010 Brittany, FRANCE	<p>Faraday Discussion 147: Chemistry of the Planets Saint Jacut de la Mer. Contact: Ian Sims, ian.sims@univ-rennes1.fr http://www.rsc.org/ConferencesAndEvents/RSCConferences/FD147/index.asp</p>
	June 14-18, 2010 Barcelona, SPAIN	<p>7th International Planetary Probe Workshop 2010 (IPPW-7) http://www.planetaryprobe.eu/</p>
	June 14-18, 2010 Fallberg, SWEDEN	<p>AbGradCon 2010 The foremost astrobiology meeting for early-career researchers invites biologists, geoscientists, astronomers and students from related fields. More information can be found at http://www.abgradcon2010.org</p>
	June 20-26, 2010 Aussois, FRANCE	<p>International Venus Conference Abstracts accepted until April 6, 2010 For information visit http://lesia.obspm.fr/venus2010/</p>
	June 22-23, 2010 Flagstaff, Arizona, USA	<p>The Annual Meeting of Planetary Geologic Mappers Contact: Les Bleamaster (lbleamas@psi.edu)</p>
	June 25-27, 2010 Nordlingen, GERMANY	<p>Nordlingen 2010: The Ries Crater, the Moon, and the Future of Human Space Exploration Deadline for abstract submission is April 8, 2010, 5:00 p.m. (CDT) Deadline for registration is June 1, 2010 http://www.lpi.usra.edu/meetings/nordlingen2010/nordlingen20101st.shtml</p>
<i>Third Quarter, 2010</i>		
	July 2010	<p>Third MSL Landing Site Engineering Assessment Workshop</p>
	July 5-9, 2010 Hyderabad, INDIA	<p>Laboratory Planetary Sciences at AOGS 2010 http://www.asiaoceania.org/aogs2010</p>

	July 18–25, 2010 Bremen, GERMANY	38th COSPAR Scientific Assembly Topics: - SC B: The Earth-Moon System, Planets, and Small Bodies of the Solar System - SC C: The Upper Atmospheres of the Earth and Planets Including Reference Atmospheres - SC D: Space Plasmas in the Solar System, Including Planetary Magnetospheres - SC F : Astrobiology and Space Science, Including Habitability on Mars : Past, Present & Future - Panel on Planetary Protection (PPP) Contact: cospar@cosparhq.cnes.fr http://www.cospar2010.org/ or http://www.cospar-assembly.org
	July 20-22, 2010 Moffett Field, CA, USA	3rd Annual NASA Lunar Science Forum Ames Research Center Abstracts deadline is May 3, 2010 http://lunarscience2010.arc.nasa.gov
	Update July 26-30, 2010 New York, New York, USA	73rd Annual Meeting of the Meteoritical Society Contact: Dr. Denton Ebel Deadline for abstracts submission is May 11, 2010 http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	July 26-30, 2010 Pasadena, California, USA	2010 Sagan Exoplanet Summer Workshop http://nexsci.caltech.edu/workshop/2010/index.shtml
	August 3-4, 2010 Pasadena, CA, USA	3rd Meeting of the NASA Small Bodies Assessment Group (SBAG)
	August 8-13, 2010 Foz do Iguassu, BRAZIL	The Meeting of the Americas (American Geophysical Union) Session P04: Ice Processes of Terrestrial Bodies Polar and ice process vary widely among solar system terrestrial bodies. Earth is dominated by H2O ice, while Mars is dominated by CO2 ice. The icy satellites of the outer planets are composed of H2O, N2, and CH4. Yet many of these processes are common to multiple bodies, e.g. the CO2 gas jets observed on Mars may be driven by similar processes as the jets observed on Enceladus and Triton. The session seeks to include studies that include laboratory experiments under planetary conditions, models and observations of ice processes. http://www.aqu.org/meetings/ja10/program/abstract_submissions.php Detailed information on the programme and meeting organization can be found at http://www.aqu.org/meetings/ja10/
	August 21-27, 2010 Budapest, HUNGARY	20th General Meeting of the International Mineralogical Association (IMA2010) You are invited to contribute to the session: PL121: Planetary mineralogy: Meteorites, shock metamorphism, and more. For general information, please visit http://www.ima2010.hu April 30 is the deadline for normal rate registration and final field trip registration.
	August 30 – September 2, 2010 Madison, WI, USA	Venus Atmosphere and Surface Workshop and the 8th VEXAG Meeting Scientists interested in comparative studies of Earth and Venus, as well as Venus atmosphere are invited to attend. Register at http://www.lpi.usra.edu/vexag For more information, visit http://venus.wisc.edu/workshop
	September 7-10, 2010 Exeter, UNITED KINGDOM	ExoClimes 2010 Exploring the Diversity of Planetary Atmospheres Deadline for abstract submission May 28, 2010 For information: http://www.exoclines.org Contact exoclines@astro.ex.ac.uk

	September 19-25, 2010 Rome, ITALY	European Planetary Science Congress 2010 http://meetings.copernicus.org/epsc2010/ Abstracts deadline May 10, 2010
	Update September 27-29, 2010 Monrovia, California USA	Fourth MSL Landing Site Community Workshop
	September 30 – October 1, 2010 Monrovia, California USA	MEPAG #23
<i>Fourth Quarter, 2010</i>		
	October 4-8, 2010 Sapporo, JAPAN	5th Alfven Conference: Plasma Interaction with Non-Magnetized Planets/Moons and Its Influence on Planetary Evolution http://www.ep.sci.hokudai.ac.jp/~alfven5/
	October 4-8, 2010 Pasadena, California, USA	42nd Annual Meeting of the DPS http://dps.aas.org/meetings/2010/
	October 31– November 3, 2010 Denver, Colorado, USA	Geological Society of America National Meeting http://www.geosociety.org/meetings/
	November 8-9, 2010 NETHERLANDS	Mars Express Science Working Team Meeting joint with Venus Express Science Team Meeting Contact Oliver Witasse at owitasse@rssd.esa.int
	December 13–17, 2010 San Francisco, California, USA	AGU Fall Meeting www.agu.org/meetings
<i>2011</i>		
	January 25-26, 2011 Washington, DC, USA	4th Meeting of the NASA Small Bodies Assessment Group (SBAG)
	March 2011	Fifth MSL Landing Site Community Workshop
	August 2011 Greenwich England, UNITED KINGDOM	74th Annual Meeting of the Meteoritical Society Contact: Gretchen Benedix http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	Update October 2-7, 2011 Nantes, FRANCE	43rd Annual Meeting of the DPS & 2011 European Planetary Science Congress Contact Olivier Grasset at Olivier.Grasset@univ-nantes.fr http://www.aas.org/dps/meetings.html
	October 9–12, 2011 Minneapolis, Minnesota, USA	Geological Society of America National Meeting http://www.geosociety.org/meetings/
	December 12–16, 2011 San Francisco, California, USA	AGU Fall Meeting www.agu.org/meetings
<i>2012</i>		

	August 2012 Cairns, Queensland AUSTRALIA	75th Annual Meeting of the Meteoritical Society Contact: Trevor Ireland http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	August 2012 Brisbane, AUSTRALIA	The 34th International Geological Congress http://www.33igc.org/
<i>2013</i>		
	July 2013 Pasadena, California, USA	8th International Conference on Mars California Institute of Technology

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

Good Friday	4/2/2010	4/22/2011	4/6/2012	3/29/2013	4/18/2014
Rosh Hashanah	9/9/2010	9/29/2011	9/17/2012	9/5/2013	9/25/2014
Yom Kippur	9/18/2010	10/8/2011	9/26/2012	9/14/2013	10/4/2014
(Note that Jewish holidays start at sundown the previous evening).					
Thanksgiving Day, U.S.	11/25/2010	11/24/2011	11/22/2012	11/28/2013	11/27/2014
Thanksgiving Day, Canada	10/11/2010	10/10/2011	10/8/2012	10/14/2013	10/13/2014

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Please send your Mars Community Announcements and calendar items for inclusion in next month's email to Joyce Pulliam, Joyce.N.Pulliam@jpl.nasa.gov, 818-393-0444.

All announcements listed in this newsletter will be posted on the MEPAG website, available at <http://mepag.jpl.nasa.gov>.