

Mars Exploration Science Monthly Newsletter

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

October 2014

Mars Science News

Special Regions SAG Final Report now available

Eleven months ago MEPAG chartered a Science Analysis Group to update our understandings of Planetary Protection “Special Regions” on Mars. These are places on Mars (in 3-D) where terrestrial organisms are likely to replicate. The last MEPAG SAG to visit this topic (SR-SAG1) was in 2006. For the SR-SAG2, MEPAG assigned this challenging job to a relatively large committee with a mixture of expertise in Mars environmental conditions and in the limits to life as we know them on Earth. The committee’s final report has been posted on the MEPAG web site at <http://mepag.nasa.gov/reports.cfm?expand=topical>. The committee and the MEPAG Chair have additionally offered this report to the journal *Astrobiology* to improve the report's distribution, visibility, and compactness/readability. (If the report is circulated, please reference it as *in press, Astrobiology*.)

This is an important topic that requires clear and concise understanding, as robotic missions planning to have direct contact with Special Regions are given planetary protection categorization (IVc), with stringent sterilization constraints on the portions of the mission contacting such regions. The avoidance of the contamination of Special Regions is also important in the planning for human missions to Mars, and this topic is discussed in the report. It is, however, important to note that MEPAG’s role in this is to prepare an analysis of the current state of knowledge and related technical issues to be considered by policy-makers (e.g., COSPAR) and not, itself, to set policy.

Organic Contamination Panel report released

In February, 2014, the Mars Exploration Program at NASA HQ chartered a community-based study team called the “Organic Contamination Panel” (OCP) to prepare an analysis of planning considerations related to the organic contamination of martian samples that may be collected by the Mars 2020 rover, recognizing that these samples may be subjected to comprehensive scientific evaluation in Earth laboratories in the future. It is understood that the requirements for the organic cleanliness of different sub-systems of the Mars 2020 rover will largely be driven by these sample-based considerations.

The OCP was led by Dr. Roger Summons (MIT) and Dr. Alex Sessions (Caltech), and included a committee of about a dozen. They have now submitted an 82-page report, along with several supporting appendices. This report has been accepted by NASA and approved for public release, and it has now been posted on the MEPAG website at <http://mepag.nasa.gov/reports.cfm?expand=smd> (under Mars Exploration Program Planning Documents). This report can be freely circulated, and it can be referenced using the citation on the cover sheet.

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 with subject line “Unsubscribe” from your email account to mepag-removesignup@jpl.nasa.gov. To be added to this mailing list, please send an email with subject line “Subscribe” from your email account to mepag-signup@jpl.nasa.gov.

Presentations available from the Comet Siding Spring Workshops

Held August 11 and September 19

On October 19, 2014, comet C/2013 A1 (Siding Spring) will swing within 138,000 km of Mars. A workshop held August 11 reviewed some of the ongoing comet observations by Earth-based assets and preliminary plans for observations by both Earth and Mars-based assets during this historic close encounter. A second workshop, held as a virtual meeting on September 19, reviewed the latest Earth-based observations of the comet and report on the status of the Mars assets as they prepare for the comet encounter. Presentations and the archived webcast from the August 11 workshop are posted on

<http://cometcampaign.org/workshop>.

Presentations and the archived webcast from the September 19 telecon are posted on


<http://mars.nasa.gov/comets/sidingspring/#webcast-agenda-20140919>.

Additional information and updates about current and planned comet observations will be posted on both sites.

Near-term Due Dates (next three months)

Due	Project
October 6, 2014	Workshop on Volatiles in the Martian Interior Early registration deadline
October 9, 2014	46th Meeting of the American Astronomical Society Division of Planetary Sciences (DPS 2014) Regular registration deadline
October 10, 2014	Annual LEAG Meeting Registration deadline
October 24, 2014	IEEE Aerospace Conference Paper deadline and latest possible abstract deadline
October 31, 2014	Workshop on Modern Analytical Methods Applied to Earth and Planetary Sciences Advance registration deadline Workshop on Volatiles in the Martian Interior Advance registration deadline
November 13, 2014	Venus Science Priorities Workshop for Laboratory Measurements and Instrument Definition Abstract deadline
November 14, 2014	AGU Fall Meeting Pre-registration and hotel deadline
December 1, 2014	IEEE Aerospace Conference Earlybird registration deadline 5th PCL Focus Days Abstract deadline

Upcoming Conferences and Workshops

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 (2:28 p.m. ET/18:28 UT)	Comet Siding Spring closest approach to Mars http://mars.nasa.gov/comets/sidingspring
	October 22-24, 2014 Laurel, MD, USA	Annual LEAG Meeting http://www.hou.usra.edu/meetings/leag2014/

Fourth Quarter, 2014

	October 27-29, 2014 St. Louis, MO, USA	ASCE Earth and Space 2014, Engineering for Extreme Environments http://earthspaceconf2014.mst.edu/
	November 1-2, 2014 Sopron, HUNGARY	Workshop on Modern Analytical Methods Applied to Earth & Planetary Sciences http://www.hou.usra.edu/meetings/methods2014/
	November 3-5, 2014 Houston, TX, USA	Workshop on Volatiles in the Martian Interior http://www.hou.usra.edu/meetings/volatiles2014/
	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 http://fallmeeting.agu.org/2014/

First Quarter, 2015

	January 27-28, 2015 Hampton, VA, USA	The Venus Instrument and Laboratory Measurements Workshop http://www.hou.usra.edu/meetings/venustech2015/
New!	February 11-12, 2015 Location TBA	Mars Express Science Working Team Meeting For more information, contact Håkan Svedhem: hsvedhem@esa.int
	March 7-14, 2015 Big Sky, MT, USA	IEEE Aerospace Conference http://www.aeroconf.org/ Abstracts deadline has been extended (no specific deadline given, but no later than the paper submission deadline: October 24, 2014).
	March 16-20, 2015 The Woodlands, TX, USA	46th Lunar and Planetary Science Conference http://www.hou.usra.edu/meetings/lpsc2015/

Second-Fourth Quarter, 2015

New!	April 12-17, 2015 Vienna, AUSTRIA	European Geosciences Union General Assembly 2015 http://www.egu2015.eu/home.html
	April 28-29, 2015 Wachtberg, GERMANY	5th PCL Focus Days 2015 http://workshops.fhr.fraunhofer.de/pclfocusdays/
New!	May 5-7, 2015 Washington, DC, USA	Humans to Mars Summit http://h2m.exploremars.org/
	May 19-22, 2015 Boise, ID, USA	4th International Planetary Dunes Workshop http://www.hou.usra.edu/meetings/dunes2015/
	May 19-22, 2015 Laural, MD, USA	Workshop on Issues in Crater Studies and the Dating of Planetary Surfaces http://www.hou.usra.edu/meetings/craterstats2015/
	May 26-27, 2015 London, UK	iCubeSat 2015: 4th Interplanetary CubeSat Workshop http://iCubeSat.org
New!	June 15-19, 2015 Cologne, GERMANY	12th International Planetary Probe Workshop (IPPW-12)

Second-Fourth Quarter, 2015

	June 15-19, 2015 Chicago, IL, USA	Astrobiology Science Conference 2015 (Abscicon) http://www.hou.usra.edu/meetings/abscicon2015/
	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 28, 2016	Insight Arrival at Mars
	October 19, 2016	ExoMars Arrival at Mars

Seasons 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>