

Mars Exploration Science Monthly Newsletter

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

Mars Science News

December 2013

NASA Planetary Science Division Research & Analysis Program Restructuring Virtual Town Hall Meeting

Tuesday, December 3, 2013

12:00 noon to 4:00 pm (EST)

The Planetary Science Division announces a virtual town hall presenting the Research and Analysis Program Restructuring. A presentation by Jonathan Rall will be followed by a question/answer period. You can attend by connecting via adobe connect and listening through your computer (no phone line needed). If you would like to ask a question type it into the chat room. A moderator will be collecting all the questions and asking them in the order they are received.

To log in to the Adobe Connect link, go to:

<https://connect.arc.nasa.gov/randa>

as a "Guest" using your full name.

Slides presenting the historical background of the R&A restructuring, brief descriptions of the new portfolio elements and how they map to the old programs, the tentative due dates, and previous presentations and questions are available at:

<http://www.lpi.usra.edu/PSD-RandA/>

Mars 2020 Announcement of Opportunity

Mars 2020 AO Amendment 2: Due dates have been changed.

The Mars 2020 Investigations AO solicits flight investigations for which each Principal Investigator is responsible for a complete space flight investigation, including instrument hardware, mission operations, and data analysis. Investigations comprised of individual instruments or multiple instruments (suites) may respond to the overall Mars 2020 objectives to explore and quantitatively assess Mars as a potential habitat for life, to search for signs of past life, to collect carefully selected samples for possible future return to Earth, and to prepare for future human exploration of Mars.

This amendment changes the date for the Pre-Proposal Conference (PPC) to October 28, 2013, the due date for required Notices of Intent (NOIs) to November 4, 2013, the due date for proposals to January 15, 2014, the due date for letters of commitment to January 15, 2014, the deadline for receipt of proposals on CD-ROM to January 21, 2014, the target date for selection announcements to April 2014 and the target date for instrument Phase A contracts to May 2014.

On October 21, 2013, this Amendment to the NASA Announcement of Opportunity "Mars 2020 Investigations" (NNH13ZDA0180) will be posted on the NASA research opportunity homepage at <http://solicitation.nasaprs.com/Mars2020>.

Questions concerning this amendment and the Mars 2020 AO, may be directed to Mitchell Schulte, Planetary Science Division, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001. Telephone: (202) 358-2127; E-mail: mars2020-ao@lists.nasa.gov

General Information:

Solicitation Number: NNH13ZDA0180
 Release Date: September 24, 2013
 Revision Date: October 21, 2013
 Pre-proposal Conference: November 4, 2013 (amended)
 Proposal Due Date: January 15, 2014 (amended)
 Letter of Commitment due: January 15, 2014 (amended)

The National Aeronautics and Space Administration (NASA) Science Mission Directorate (SMD) is releasing an Announcement of Opportunity (AO) entitled Mars 2020 Investigations to solicit proposals for investigations for a space flight mission to Mars, to be launched in July/August 2020.

The full text of the AO and any appendices are available electronically at the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) website (<http://solicitation.nasaprs.com/Mars2020>). Links to the AO and additional information about the intent and the capabilities of the Mars 2020 rover are located at the Mars 2020 Acquisition Website (<http://soma.larc.nasa.gov/mars2020>).

Investigations comprised of individual instruments or multiple instruments (suites) may respond to the overall Mars 2020 objectives to explore and quantitatively assess Mars as a potential habitat for life, to search for signs of past life, to collect carefully selected samples for possible future return to Earth, and to prepare for future human exploration of Mars.

The Mars 2020 Investigations AO solicits flight investigations for which each Principal Investigator is responsible for a complete space flight investigation, including instrument hardware, mission operations, and data analysis. Although individual PI-managed instrument science investigations do not have a predetermined cost cap, the total allocated cost for all the SMD-funded investigations selected is approximately \$100M in Real Year (RY) dollars for Phases A through D. Additional funding of approximately \$60M RY is allocated for investigation in Phase E. Additionally, exploration technology investigations, jointly funded by the Human Exploration and Operations Mission Directorate (HEOMD) and Space Technology Mission Directorate (STMD) may be selected at a total cost of approximately \$30M in RY dollars, including Phase E costs. The total payload resources, including mass, power, and data for the instrument complement, will be provided in a Payload Information Package (PIP) posted to the Mars 2020 Acquisition Website. Note that the Mars 2020 Investigations AO may contain provisions that differ from this notice, in which case those in the AO will take precedence.

Participation in this AO is open to all categories of organizations (U.S. and non-U.S.), including educational, industrial, and not-for-profit organizations, Federally Funded Research and Development Centers, University Affiliated Research Centers, NASA centers, the Jet Propulsion Laboratory, and other Government agencies. Principal Investigators are responsible for, and may assemble their investigation teams from, any of these organizations.

Contracting Office Address:

NASA Goddard Space Flight Center, NASA Headquarters Acquisition Branch, Code 210.H, Greenbelt, MD 20771

Dynamic Mars from long-term observations

Dear Co-authors,

The deadline for manuscripts submitted to the Icarus special issue "Dynamic Mars from long-term observations" is postponed from November 15 to December 20, 2013, reflecting down time associated with recent government shutdown that affected many authors. The focus and guidelines associated with the special issue remain the same (see below).

Nathan Bridges and Leslie Tamppari

We are well into the 2nd decade of continuous Mars observations that began with MGS and have continued with ODY, MEX, MRO, and our landed spacecraft. Bridged to earlier times by spacecraft observations from the 1960s onwards, and a continuous telescopic campaign, our view of Mars is now one of a planet on which surface and atmospheric changes occur at frequencies of days, years, and decades, a testament to long-term monitoring that continues to this day. At this time, it is appropriate that this record, with implications for Martian geology, climate, atmospheric dynamics, and other processes, be integrated into a journal special section, submitted to *Icarus* by December 20, 2013.

This special issue is for for papers that:

- Include surface, sub-surface, and atmosphere observations, or model results, that are new and a unique outcome of the long-term data acquisition provided by Mars spacecraft and telescopes
- Highlight the long-term implications of processes that are

observed and ongoing now

- Are *not* reviews of previous work

Submission Format:

The submitted papers must be written in English and describe original research which is not published nor currently under review by other journals or conferences. Author guidelines for preparation of manuscript can be found at http://www.elsevier.com/wps/find/journaldescription.cws_home/505620/authorinstructions

For more information, please contact the editorial office at icarus@astro.cornell.edu

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Important Dates:

Paper submission Deadline: December 20, 2013

Acceptance notification: June 20, 2014

Publication: 2014

Submission Guidelines:

Manuscripts and any supplementary material should be submitted through Elsevier Editorial System (EES). The authors must select "**Dynamic Mars**" when they reach the "Article Type" step in the submission process. The EES website is located at <http://ees.elsevier.com/icarus/>

Photogrammetric Processing of Planetary Stereo Imagery using ISIS and SOCET SET®

The Planetary Photogrammetry Guest Facility at the Astrogeology Science Center of the U.S. Geological Survey would like to announce a new Call for Participation for a training opportunity on December 17-19, 2013, on Photogrammetric Processing of Planetary Stereo Imagery using ISIS and 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 topics include:

- An introduction to photogrammetric procedures and surface generation techniques;
- Overview of HiRISE imagery; and
- Workflow and data exchange between ISIS and SOCET SET.

The hands-on training will include ISIS preprocessing, SOCET SET import of image and reference data, 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) with the following specific information: your name, title, affiliation, address, full contact information, and a short statement describing your interest in the training. Please note that seating for this session is very limited, so please express your interest as soon as possible. Please note the following:

1. Training will be 3 days, from Tuesday through Thursday, December 17-19, 2013.
2. The training will be based exclusively on a standard set of HiRISE stereo images.

3. ISIS, SOCET SET and the Guest Facility support the use of images from several planetary cameras in addition to HiRISE. While this hands-on training will be based on HiRISE images, it would be our pleasure to advise participants on the suitability of other planetary cameras for their research projects. Furthermore, we can provide one-on-one support to producing DTMs at later days.
4. The Guest Facility has a single workstation available year-round for users who need to generate their own products. If you would like to stay longer (after this training) or come at a later date to generate your own products using the Guest Facility, please let us know the kind of images you would be using and how many DTMs you hope to produce so that we can schedule your visit accordingly.
5. For more information about the Guest Facility, and for Frequently Asked Questions, please visit: <http://astrogeology.usgs.gov/geology/photogrammetry-guest-facility>. Go to Downloads at the bottom of the page and follow the link "Planetary Photogrammetry Guest Facility FAQ".
6. If you are interested in ISIS training, please see: <http://isis.astrogeology.usgs.gov/IsisWorkshop/index.php/IsisWorkshop>

With your participation, we look forward to realizing another successful and productive training session. In the meantime, please do not hesitate to contact me directly if you have any questions or require further information.

Contact: Dr. Raad Saleh, Training Coordinator, The Planetary Photogrammetry Guest Facility (PlanetaryPhotogrammetry@usgs.gov)

Near-term Due Dates (next three months)

Due	Project
December 31st	Humans To Mars Summit 2014 Early Registration Deadline
December 31st	International interdisciplinary workshop on: Accretion and early differentiation of the terrestrial planets Pre-registration and Abstracts deadline
January 10th, 2014	Science and Challenges of Lunar Sample Return Workshop Presenter Registration Deadline
January 31st, 2014	Origins 2014 Early Registration Deadline
February 14th, 2014	40th COSPAR and Associated Events Abstract Deadline

Upcoming Conferences and Workshops in 2013

Fourth Quarter, 2013		
	December 9-13, 2013 San Francisco, CA, USA	AGU Fall Meeting http://fallmeeting.agu.org/2013/

Future Conferences and Workshops

2014		
	January 2014	Mars Express Science Working Team Meeting Contact: Olivier Witasse (owitasse@rssd.esa.int)
	January 13-16, 2014 Oxford, ENGLAND	5th International Workshop on the Mars Atmosphere : Modelling and Observations http://www-mars.lmd.jussieu.fr/oxford2014
	February 9-14th Davos, SWITZERLAND	Exoclimes III http://www.exoclimes.org
	February 18-19, 2014 Noordwijk, NETHERLANDS	Science and Challenges of Lunar Sample Return Workshop http://congrexprojects.com/2014-events/14c05/ Presenter registration deadline is January 10, 2014
	February 19, 2014 Pasadena, CA, USA	2001 Mars Odyssey PSG
	March 1-8, 2014 Big Sky, MT, USA	IEEE Aerospace Conference http://www.aeroconf.org/
	March 17-21, 2014 Woodlands, TX, USA	45th Lunar and Planetary Science Conference http://www.hou.usra.edu/meetings/lpsc2014/

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Second Quarter, 2014

	April 22-24, 2014 Washington, DC	Humans to Mars Summit http://spaceref.com/calendar/calendar.html?pid=8221
	May 13-14, 2014 Washington, DC	Mars Exploration Analysis Group (MEPAG) Meeting
	May 19-21, 2014 Houston, TX, USA	Venus Exploration Targets Workshop http://www.hou.usra.edu/meetings/venus2014/
New!	May 20-22, 2014 Bergen, NORWAY	Biosignatures Across Space and Time http://www.nordicastrobiology.net/Biosignatures2014/
	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 Pre-registration and Abstracts deadline is December 31, 2013
	June 16-21, 2014 Noordwijk, NETHERLANDS	48th ESLAB Symposium: New Insights to Volcanism Across the Solar System http://congrexprojects.com/2014-events/48-ESLAB/





Third Quarter, 2014

	July 6-11, 2014 Nara, JAPAN	ORIGINS 2014 http://www.origin-life.gr.jp/origins2014/index.html
	July 14-18, 2014 Pasadena, CA, USA	8th International Conference on Mars
	July 21-25, 2014 Lanzhou, CHINA	Eighth International Conference on Aeolian Research (ICAR VIII) Special session on extra-terrestrial Aeolian research
	August 2-10, 2014 Moscow, RUSSIA	40th COSPAR 2014 and Associated Events http://www.cospar-assembly.org/
	September 22, 2014	MAVEN Mars Orbit Insertion (MOI)

Fourth Quarter, 2014

	October 19-22, 2014 Vancouver, British Columbia, CANADA	Geological Society of America Annual Meeting
	November 9-14, 2014 Tucson, AZ, USA	46th Meeting of the American Astronomical Society Division of Planetary Sciences (DPS 2014) http://dps.aas.org/meetings
	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

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

Good Friday	3/29/2013	4/18/2014	4/3/2015	4/6/2016	4/14/2017
Rosh Hashanah	9/5/2013	9/25/2014	9/14/2015	9/16/2016	9/20/2017
Yom Kippur	9/14/2013	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.	11/28/2013	11/27/2014	11/26/2015	11/22/2016	11/23/2017
Thanksgiving Day, Canada	10/14/2013	10/13/2014	10/12/2015	10/8/2016	10/9/2017
Christmas Day	12/25/2013	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>