

Status Report of a Joint Science Working Group for a Proposed 2018 Joint Mars Mission. D. W. Beaty¹, G. Kminek², the 2018 Joint Science Working Group (Allwood, Abby; Arvidson, Ray; Borg, Lars; Farmer, Jack; Goemann, Fred; Grant, John; Hauber, Ernst; Murchie, Scott; Ori, Gian Gabriele; Ruff, Steve; Rull, Fernando; Sephton, Mark; Sherwood Lollar, Barbara; Smith, Caroline; Westall, Frances; Pacros, Anne; Wilson, Mike; Meyer, Michael; Vago, Jorge), the Joint Operations Scenario Working Group (Bass, Deborah; Joudrier, Luc; Allwood, Abby; Boyes, Ben; Francescetti, Paola; Hurowitz, Joel; Laubach, Sharon; Loizeau, Damien; Pacros, Anne;), and the Joint Instrument Team (Feldman, Sabrina; Trautner, Roland) ¹California Institute of Technology/Jet Propulsion Laboratory (4800 Oak Grove Drive, Pasadena, CA 93012), ²ESA-ESTEC (Keplerlaan 1, 2200 AG Noordwijk, The Netherlands)

Introduction: NASA and ESA have started discussions about a joint Mars mission proposed for launch in 2018. This rover mission would pursue *in-situ* science and caching of samples for potential subsequent return to Earth.

Analysis Group (MEPAG) at
<http://mepag.jpl.nasa.gov/reports/>.

A Joint Science Working Group (JSWG) and a Joint Engineering Working Group (JEWG) have been formed in June 2011 to support definition of the proposed 2018 mission concept. The JSWG is composed of scientists from the US, Canada, and Europe and supported by the Joint Operations Scenario Working Group (JOSWG).

The main tasks of the JSWG are to:

- Establish the scientific objectives for the proposed joint mission;
- Establish scientific requirements to meet the science objectives;
- Establish a reference surface mission scenario consistent with the science objectives and requirements.

The deliberations of the JSWG are based on the assumption that the ExoMars Pasteur Payload, including the 2-meter deep drill, would be part of the proposed joint mission and take into account the MEPAG ND-SAG and MEPAG E2E-iSAG reports.

A report of this working group will be delivered to the Joint Mars Exploration Executive Board (JMEB) for their consideration by the end of January 2012. This presentation will provide a summary of this report.

References:

- MEPAG Next Decade Science Analysis Group (ND-SAG) (2008), Science priorities for Mars sample return, *Astrobiology*, 8, 489-535.
- MEPAG E2E-iSAG (2011) Planning for Mars Returned Sample Science: Final report of the MSR End-to-End International Science Analysis Group (E2E-iSAG), TBD pp., posted TBD, 2011, by the Mars Exploration Program