



The Arctic Mars Analogue Svalbard Expedition 2010.

Andrew Steele, Hans Amundsen, Liane Benning, Marilyn Fogel, Nicole Schmitz, and Amase 2010 team
United States (asteele@ciw.edu)

The Arctic Mars Analogue Svalbard Expeditions (AMASE) 2010 was the latest of a series of expeditions that are NASA ASTEP and ESA funded and have as their primary goals 1) testing portable instruments for their robustness as field instruments for life detection, 2) assessing Mars analogue environments for biosignatures and biosignatures, 3) refining protocols for contamination reduction, 4) defining a minimal instrument suite for Astrobiology science on Mars and 5) sample acquisition, collection and caching of suitable samples by rover platforms containing sample acquisition hardware: first Cliffbot, then Athena. As well as testing ESA instrumentation for the ExoMars mission and NASA instruments for Mars Science Laboratory, the goals and technologies used during this 2010 campaign are very similar to that proposed by the current MEPAG MAX-C mission concept and therefore set the stage for future sample return missions. As such the field-tested technologies, procedures and protocols can be used to address specific science objectives proposed for the 2018 Mars mission opportunity. As NASA and ESA enter a new era of collaboration, AMASE has provided and will continue to provide, a test bed for both current in-situ robotic missions and Mars Sample Return mission architectures. AMASE has proved to be a unique platform to build understanding and collaboration amongst scientists and engineers from Europe and the USA.

AMASE 2010 team (other than those mentioned above): Ivar Midtkandal, Kjell Ove Storvik, Garret Huntress, Verena Starke, Pan Conrad, Francis McCubbin, Tor Viscor, Antonio Sensano, Laureline Josset, Jean-Luc Josset, Mihaela Glamoclija, Steve Squyres, Inge Loes Ten Kate, Kyong Hou, Jen Stern, Amy McAdam, Dave Blake, Dick Morris, Claire Cousins, Arnold Bauer, Carole Phillippon, Eckhard Steinmetz, Dave Potts, Dominique Tobler, Guillermo Lopez.