

EXOMARS PLANETARY PROTECTION TRAINING EXPERIENCE

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ABSTRACT

Two missions are foreseen in ExoMars program: ESA lead 2016 mission with ESA Orbiter Module providing communication and carrying NASA scientific instruments and the ESA Entry, Descent and Landing Demonstrator (EDM); NASA lead 2018 mission with an ESA Rover Module (RM) accommodated in the Sky Crane together with NASA rover. EDM will test Entry, Descent and Landing of a payload on the surface of Mars. ESA RM will perform environmental investigations and look for traces of past and present life signs, by collecting samples down to 2 meters subsurface, and analyzing them by extremely high sensitivity instruments.

A training program was defined and is being conducted and coordinated by the Prime Planetary Protection Engineer (P-PPE). Different levels of individual training apply depending on individual task descriptions: **Level 0**, to be attended by all involved personnel in the project – ensuring a common understanding; **Level 1**, for workforce not required to work in bioburden controlled areas but whose actions may affect work inside; **Level 2**, for any of the workforce inside bioburden control areas (this staff will have been medically screened); **Level 3** is specifically for Planetary Protection “Supervisors” – controlling operations inside cleanroom. Training includes general parts to learn about policy, requirements, hygiene and microbiology, and specific parts to acquire know how to operate in a bioburden controlled environment.

It is not training that gives attendees all the answers but hopefully training helps them to understand how to approach the challenges. Furthermore, feedback to trainer from the participants’ different disciplines is important. The paper mainly focuses on training experience for project personnel preparation in view of the technical implementation of planetary protection and contamination control requirements of the ExoMars missions.