

LIVE FROM THE MOON EXOLAB: EUROMOONMARS SIMULATION AT ESTEC 2017

A. Neklesa², A., B.H. Foing^{1,2,3}, A. Lillo^{1,2,4}, P. Evellin^{1,2,5}, A. Kołodziejczyk^{1,2}, C. Jonglez^{1,2,4}, C. Heinicke^{2,3}, M. Harasymczuk^{1,2}, L. Authier^{1,2,4}, A. Blanc^{1,2,4}, C. Chahla^{1,2,5}, A. Tomic², M. Mirino^{1,2}, I. Schlacht^{2,3,6}, S. Hettrich⁷, T. Pacher⁸, ¹ESA/ESTEC & ²ILEWG (PB 299, 2200 AG Noordwijk, NL, Bernard.Foing@esa.int), ³VU Amsterdam, ⁴Supaero Toulouse, ⁵ISU Strasbourg, ⁶Extreme Design, ⁷SGAC, ⁸Puli team

Introduction: The 8th year of the ILEWG EuroMoonMars programme [1] was celebrated by the workshop and the analogue mission 2017. The team of space enthusiasts simulated the landing on the Moon having pre-landed Habitat ExoHab, ExoLab 2.0, and the Storage Unit on the Moon and the control centre on Earth. We give here the first-hand experience from a reporter (A.N.) who joined the space crew.



Figure 1 ExoLab 2.0 interior equipped for sample analysis and storing

Goals: Our goal was to face astronaut's daily routine and to experience the life on the Moon at its raw. The EuroMoonMars mission simulation 2017 [2] intended to collect and analyse samples from the Moon surface along with the evaluation of ergonomics of the units and the brought equipment needed to complete the mission. The new voice protocol aimed to standardize and facilitate the communication between the Mission Control and the ExoLab was the subject of a training program.

Overview: After successful arrival from Earth onboard a Deep Space Shuttle; and landing near the Habitat to the ExoLab, the team has conducted the following protocol: health & safety check; measured blood pressure, explored body and psycho for trauma and the lab unit for a possible damage damage as it has arrived before. The EVA related protocols were tested: doffing and donning, entering and exiting the ExoLab.

Later the same day the signal from the Lander [3] was received by the team leading one of the ExoLab astronauts outside to explore the surface where he joined the ExoHab crew member to collect samples. After several hours spent on the Moon surface they safely made their way back.

It was the most amazing journalist experience you could ever imagine! The report from the Moon, being a part of the space crew and getting into the secrets of protocols and mission routine is absolutely outstanding! I hope one day each of us can experience the same thrilling sensation as the very first journalist on the Moon.



Figure 2 Astronauts conducting bio experiments at the ExoLab.

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References: [1] Foing BH (2009) LPI/LPSC 40, 2567; [2] Evellin P et al (2017) LEAG 5075; [3] Lillo A et al (2017) LEAG 5079