

IAF SPACE EXPLORATION SYMPOSIUM (A3)
Moon Exploration – Part 3 (2C)

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EXPERIENCE AND LESSONS LEARNT AS CREW-COMMANDER-IN-TRAINING FOR EMMIHS-III
LUNAR-ANALOGUE SIMULATION**Abstract**

The present abstract describes the novel methods introduced, scientific and artistic experiments conducted and lessons learnt by the author during her participation as commander-in-training during the EMMIHS-III lunar analogue campaign, which took place from 18th January-1st February, 2020. The crew consisted of 6 members (3 males and 3 females, all under the age of 32) and focused on analogue habitat simulation, scientific research on robotics and lava-cave exploration techniques, art and outreach.

The EMMIHS campaigns are a collaboration between the International Lunar Exploration Working Group (ILEWG)'s EuroMoonMars initiative, the International Moonbase Alliance (IMA) and HI-SEAS. ILEWG is a public forum sponsored by the world's space agencies (including NASA and ESA) to support international cooperation towards the exploration and utilization of the Moon. Its EuroMoonMars initiative comprises of field campaigns in Moon-Mars analogue environments such as at HI-SEAS (Hawai'I Space Exploration Analog and Simulation), a Habitat owned by IMA-founder Henk Rogers, located on an isolated Moon/Mars-like site on the Northern slope of the Mauna Loa Volcano (Hawai'i, USA) at approximately 8200 feet above sea level, and used regularly since 2018 for simulating hi-fidelity space missions.

Dr Michaela Musilova is the Director of HI-SEAS and takes part in missions as a Crew Commander, Flights Director or CAPCOM. The author trained under Dr Musilova as crew-commander and was proactive in devising novel techniques for water consumption and a set of emergency rule for the habitat. Thanks to these methods, the crew has the distinction of being the most water-efficient HI-SEAS crew till date (using less than 3