

IAF HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Human Space & Exploration (8)

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CONSIDERATIONS FOR HUMAN EXPLORATION SYNERGIES BETWEEN THE MOON AND
MARS: A REPORT FROM THE SEVENTH COMMUNITY WORKSHOP FOR ACHIEVABILITY AND
SUSTAINABILITY OF HUMAN EXPLORATION OF MARS (AM VII)**Abstract**

In November 2019, subject matter experts on human lunar and martian exploration, science, operations, key technologies, and policy assembled for the Seventh Community Workshop for Achievability and Sustainability of Human Exploration of Mars (AM VII). The workshop examined several key capabilities that had been identified at the 6th workshop of this series (https://www.exploremars.org/wp-content/uploads/2019/12/AM-VI_FinalReport_DigitalOnly_012919.pdf). Participants of AM VII discussed how human exploration of Mars could be achieved, including: *fffiLunar ascent vehicle/lander extensibility to Mars ascent vehicle/lander, including propulsion and habitation* *fffiCryogenic fuel storage and utilization (ISRU) and other operations, including surface suits, power and emplaced assets* *fffiMars and lunar surface operations* *fffiHuman and system health maintenance, particularly life support, extravehicular activity (EVA), and on-demand training* *– Logistic tracking, location, and management* The workshop also devoted substantial time to analyze aspects