

21st IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM (A5)
Interactive Presentations - 21st IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR
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TECHNOLOGIES FOR LONG TERM MARS HABITATION

Abstract

With companies like SpaceX focused on getting people to Mars, there is a larger question of what will we do once we arrive? How will we live? How can we create a sustainable environment for an unknown and ever growing population. While NASA and other agencies discuss sending and returning small numbers of people, Mars One, Elon Musk and others discuss colonizing the planet. A colony's needs are very different from those of a temporary base, and that is something that needs to be seriously considered. There exist today in existing or nascent form, technologies that will be vital to both building and maintaining a colony on a celestial body. Herein we discuss the major elements, opening up avenues of research and discussion for our future.