

Law Issues and Public Awareness Related to Space Exploration (11)  
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## A 21ST CENTURY EDUCATIONAL ACADEMY DEVELOPING EXPERIENTIAL INNOVATIVE PROGRAMS AND TRAINING NEXTGEN ANALOG ASTRONAUTS IN SIMULATION MARS-MOON MISSIONS

### Abstract

Space exploration and new discoveries of the Universe is important for Humanity. Education, public outreach and space-related programs that offer experiential, hands-on learning that is ACTIVE, interactive and exciting versus the more traditional method of passive learning is now the new paradigm of learning and for engaging students and the general public about Space. To-date, we have developed a unique real-time, experiential educational training program for students and scientists, academics and the general public who are interested about the Next Frontier of Space. Participants are given the opportunity to engage in innovations and cutting-edge technologies by joining various workshops and working in small teams culminating in a chance to join a mission crew and experience a fully immersive analog astronaut simulation crew mission to analog Mars or Moon. We will present our unique analog astronaut simulation training program and profile some of our cutting-edge space innovations, novel concepts, experimental technologies during past, present and proposed future analog astronaut simulation missions. We will feature unique, creative ideas and innovative technologies for human space exploration, feasibility biomedical projects, robotics and rover studies for Extra-Vehicular-Activities, EVA, for future planetary surface exploration, development and testing an integrated, portable solar powered 3D Printing technology for space surgery, optimizing human performance and crew interactions by integrating Virtual Reality and complementary medicine platforms, such as, yoga and mindfulness meditation programs in the development of space psychological mitigation concepts, promoting S.T.E.A.M, public outreach and space-art. These visionary ideas were designed and tested during pass simulations crew missions and created by a transdisciplinary group of analog astronauts, scientists, explorers, researchers, space artists who as a collective force have committed and dedicated their energies to moving humans beyond Earth's orbit with the vision to building a positive inspiring future for the Next Generation of space explorers and future settlers on Moon or Mars. The Analog Astronaut expedition crews have collaborated under the auspices of the Mars Society, Mars Without Borders, MWOB and current plans are implementation of Mars Academy's unique training program at Death Valley or Utah desert July 2017. Our mission is to create and test capabilities related to enabling future human missions to Moon and Mars. As a community, we will continue to train and educate NextGen analog astronauts and space explorers and to challenge our human limitations, to overcome our fears and boldly reach out into the vast darkness of our Universe to become a multi-planetary species.