



## **A History of Lunar and Martian Analogue field testing sites on volcanic island of Hawai‘i**

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This presentation will review the numerous field tests at analogue sites supporting Lunar and Mars exploration concepts and technology. These sites are recognized as high-fidelity technical and scientific sites due to the variety of volcanic terrains and the pristine, recent tephra. From the Apollo astronaut geology training during the 1960s, through projects at the Hawai‘i Volcanoes National Park, to the 3 (and only) NASA In-Situ Resource Utilization (ISRU) tests on Maunakea, the HI-SEAS program, and on to the most recent BASALT (Biologic Analog Science Associated with Lava Terrains Conops Development for Future Human Exploration of Mars) and SUB-SEA (Systematic Underwater Biogeochemical Science and Exploration Analog) projects, both PSTAR (Planetary Science and Technology Through Analog Research) awards. Finally a look forward to the ambitious International MoonBase and its proposed full-scale operational Lunar Base analogue.