



Sun-Mar's composting toilets hop aboard HI-SEAS' mission to Mars.

Burlington, Ontario. The Hawaii Space Exploration Analog and Simulation ("HI-SEAS") is a NASA-funded mission simulation. Crew members are housed in a dome habitat for the length of the simulation. The purpose of this simulation is to gather data that will ultimately benefit future manned missions to Mars. The habitat, more commonly known as simulation Mars ("sMars"), is currently home to 6 crew members who will live there for one full year. For the duration of the program, HI-SEAS has selected Sun-Mar's Excel series composting toilets to be used in the habitat.

The sMars habitat strives to replicate the conditions of a mission on Mars as closely as possible. Stationed in Hawaii, the two-floor dome structure features various common areas such as a lab, exercise facility, dining area and of course, bathrooms. Crew members spend the vast majority of their time completing various tasks and experiments within the habitat itself. Once equipped with a full space suit, the crew is also able to explore outside of the habitat.

Careful consideration went into the building and design of the sMars habitat. It is important that the structure and all of its components are able to function effectively throughout the length of the simulation. The decision was made to use the Sun-Mar Excel series composting toilets as a next generation alternative to conventional flushing toilets. By using waterless toilets the habitat is able to reduce water consumption. It has also allowed the crew members to carry out their day-to-day "business" without a hitch.

"The HI-SEAS mission is a unique and exciting use for our composting toilets. Sun-Mar's toilets can truly go anywhere and this sMars mission shows excellent proof of that," says Joe LoCicero, US Sales Manager. "It has been interesting to follow the successful progress of the HI-SEAS' simulations thus far."

"Our composting toilets have been out of this world, we are very pleased to have these units on board," says Kim Binsted of the HI-SEAS team.

About Sun-Mar

Founded in 1983, Sun-Mar is a pioneer in composting and recycling technology. With its complete line of composting toilets and garden products, the company has achieved a worldwide leadership position based on unique product designs and patented technologies. Sun-Mar designs, assembles and distributes each product to ensure and maintain high quality standards. In fact, only Sun-Mar has composting toilets that are certified by the National Sanitation Foundation (NSF) to NSF/ANSI Standard #41 for residential use.

About HI-SEAS

NASA has awarded \$1.2 million to the Hawai'i Space Exploration Analog and Simulation (HI-SEAS) program to continue its work studying the human factors that contribute to astronaut crew function and performance during long-duration space travels, such as those anticipated for a manned mission to Mars. The University of Hawaii at Manoa leads this study, with support from team members at Cornell University, Michigan State University, Arizona State University, University of South Florida, the University of Maryland, the Institutes for Behavior Resources, Smart Information Flow Technologies, Blue Planet Foundation, and from the Pacific International Space Center for Exploration Systems (PISCES). Each of the missions is focused on the social, interpersonal, and cognitive factors that affect team performance over time. Over the course of the study, researchers from the outside will evaluate the crew's communications strategies, crew workload and job-sharing, and conflict resolution/conflict management approaches to determine the most important factors for success of a long duration space mission.

