Scientists emerge from isolated dome on Hawaii volcano slope (Update)

June 14 2015, byCathy Bussewitz

In this March 10, 2015, photo provided by the University of Hawaii at Manoa HI-SEAS Human Factors Performance Study, mission commander Martha Lenio collects a soil sample outside of the dome in which six scientists lived an isolated existence to simulate life on a mission to Mars, on the bleak slopes of dormant volcano Mauna Loa near Hilo on the Big Island of Hawaii. The scientists who took part of a human performance study funded by NASA, stepped outside the dome at 8,000 feet elevation to feel fresh air on their skin Saturday, June 13, 2015, the first time they'd ventured out without donning a space suit in eight months. (Neil Scheibelhut/University of Hawaii at Manoa via AP)

Six scientists who were living under a dome on the slopes of a dormant Hawaii volcano for eight months to simulate life on Mars have emerged from isolation.

The crew stepped outside the dome that's 8,000 feet (2,400 meters) up the slopes of Mauna Loa to feel fresh air on their skin Saturday. It was the first time they left without donning a space suit.

The scientists are part of a human performance study funded by NASA that tracked how they worked together as a team. They have been monitored by surveillance cameras, body movement trackers and electronic surveys.

Crew member Jocelyn Dunn said it was awesome to feel the sensation of wind on her skin.

"When we first walked out the door, it was scary not to have a suit on," said Dunn, 27, a doctoral candidate at Purdue University. "We've been pretending for so long."

The dome's volcanic location, silence and its simulated airlock seal provided an atmosphere similar to space. Looking out the dome's porthole windows, all the scientists could see were lava fields and mountains, said University of Hawaii professor Kim Binsted, principal investigator for the study.

Tracking the crew members' emotions and performance in the isolated environment could help ground crews during future missions to determine if a crew member is becoming depressed or if the team is having communication problems.

"Astronauts are very stoic people, very level-headed, and there's a certain hesitancy to report problems," Binsted said. "So this is a way for people

on the ground to detect cohesion-related problems before they become a real issue."

This April 9, 2015, photo provided by the University of Hawaii at Manoa HI-SEAS Human Factors Performance Study shows the interior of a dome in which six scientists lived an isolated existence to simulate life on a mission to Mars, on the bleak slopes of dormant volcano Mauna Loa near Hilo on the Big Island of Hawaii. The scientists who took part of a human performance study funded by NASA, stepped outside the dome at 8,000 feet elevation to feel fresh air on their skin Saturday, June 13, 2015, the first time they'd ventured out without donning a space suit in eight months. (Zak Wilson/University of Hawaii at Manoa via AP)

Spending eight months in a confined space with six people had its challenges, but crew members relieved stress doing team workouts and yoga. They were able to use a solar-powered treadmill and stationary bike, but only in the afternoons on sunny days.

"When you're having a good day its fine, it's fun. You have friends around to share in the enjoyment of a good day," Dunn said. "But if you have a bad day, it's really tough to be in a confined environment. You can't get out and go for a walk ... it's constantly witnessed by everyone."

The hardest part was being far away from family and missing events like her sister's wedding, for which she delivered a toast via video, Dunn said. "I'm glad I was able to be there in that way, but ... I just always dreamed of being there to help," she said.

In this photo provided by the University of Hawaii at Manoa HI-SEAS Human Factors Performance Study, six scientists exit a dome that they lived in as part of an isolated existence to simulate life on a mission to Mars, on the bleak slopes of dormant volcano Mauna Loa near Hilo on the Big Island of Hawaii, Saturday, June 13, 2015. The scientists who took part of a human performance study funded by NASA, stepped outside the dome at 8,000 feet elevation to feel fresh air on their skin Saturday, the first time they'd ventured out without donning a space suit in eight months. (Ryan Ogliore/University of Hawaii at Manoa via

AP)

The first thing crew members did when they emerged from the dome was to chow down on foods they've been craving—juicy watermelon, deviled eggs, peaches and croissants, which was a step up from the freeze dried chili they'd been eating.

Next on Dunn's list: going for a swim. Showers in the isolated environment were limited to six minutes per week, she said.

"To be able to just submerge myself in water for as long as I want, to feel the sun, will be amazing," Dunn said. "I feel like a ghost."

In this May 21, 2015 photo from the University of Hawaii at Manoa HI-SEAS

Human Factors Performance Study, crew member Sophie Milam conducts a research project outside of the dome in which six scientists lived an isolated existence to simulate life on a mission to Mars, on the bleak slopes of dormant volcano Mauna Loa near Hilo on the Big Island of Hawaii. The scientists who took part of a human performance study funded by NASA, stepped outside the dome at 8,000 feet elevation to feel fresh air on their skin Saturday, June 13, 2015, the first time they'd ventured out without donning a space suit in eight months. (Martha Lenio/University of Hawaii at Manoa via AP)

This March 10, 2015 photo provided by the University of Hawaii at Manoa HI-SEAS Human Factors Performance Study shows a dome in which six scientists lived an isolated existence to simulate life on a mission to Mars, on the bleak slopes of dormant volcano Mauna Loa near Hilo on the Big Island of Hawaii. The scientists who took part of a human performance study funded by NASA, stepped outside the dome at 8,000 feet elevation to feel fresh air on their skin Saturday, June 13, 2015, the first time they'd ventured out without donning a space suit in eight months. (Neil Scheibelhut/University of Hawaii at Manoa via AP)