

Inhabiting the Red Planet

Introduction

The question of whether or not Mars will ever be habitable to humans has been a topic that scientists and researchers have been inquiring and studying for years. In more recent years, scientists have discovered that an uninhabited island in the Canadian High Arctic, Devon Island, allows for realistic mission goals to be tested. In this project, I studied this location to see how it can be suited for practicing life on Mars.

Devon Island

- Uninhabited, isolated island in the Nunavut territory, in the Canadian High Arctic at a Latitude: 75° N Longitude: -88 W
- Desert environmental conditions similar to Mars
- This harsh climate and freezing temperatures of -19 F mimic the environmental conditions on Mars
- “Arctic day and night cycle and restricted communications capabilities offer fitting analogs for the challenges of a long-duration space flights (Houghton Mars Project (HMP)).”
- Allows for realistic mission goals to be tested
- Nicknamed “Mars on Earth”

Isabel Farr, Department of Dance

The Flashline Mars Arctic Research Station (FMARS) 2007 Long Duration Mission was a human factors research project that studied:



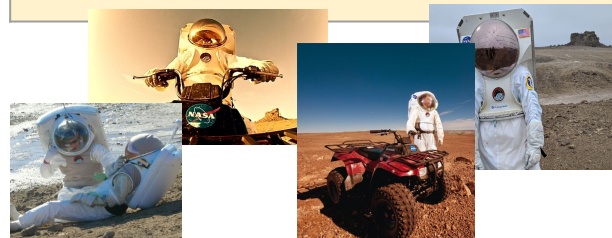
- countermeasures to stress and isolation
- analysis of group dynamics
- analysis of environment habitability
- cognitive performance
- sleep disruption under the Arctic Martian Sol conditions
- food choice, preparation, and overall satisfaction

The Houghton Mars Project is part of a research facility, on Devon Island, which researches the following areas of study:



- communications
- equipment testing
- vehicular and extra-vehicular operations
- develop new technologies, strategies, and operational protocols to support the future exploration of the moon, Mars, and other planets

Spacesuits and ATV's on Devon Island



Greenhouse on Devon Island Monitored Remotely

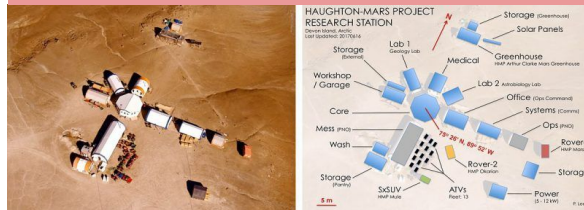


Conclusion

One day the feasibility of these tests will come to fruition once we land on Mars. Until then Devon Island will continue to prepare Martian explorers.

References

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