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MARS ONE

PhD coffee

What is Mars One ?

Aim of the mission	Human settlement on Mars
Founders	Bas Lansdorp & Arno Wielders
Financing	Private investors and diffusion of a reality TV show

Roadmap

2011 — Founded

2013 — Start crew selection

2015 — Start crew training

2018 — Demo and Comsat mission

2020 — Rover mission launched

2022 — Cargo mission launched

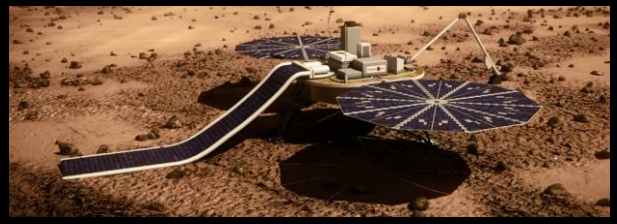
2023 — Outpost operational

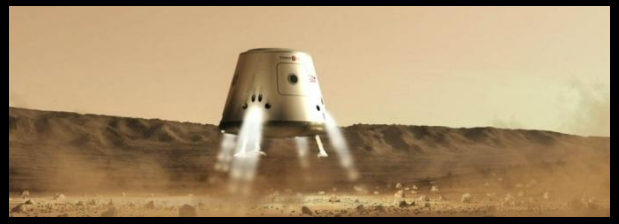
2024 — Departure crew one

2025 — Landing crew one

2026 — Departure crew two

Mars one introduction - Youtube video





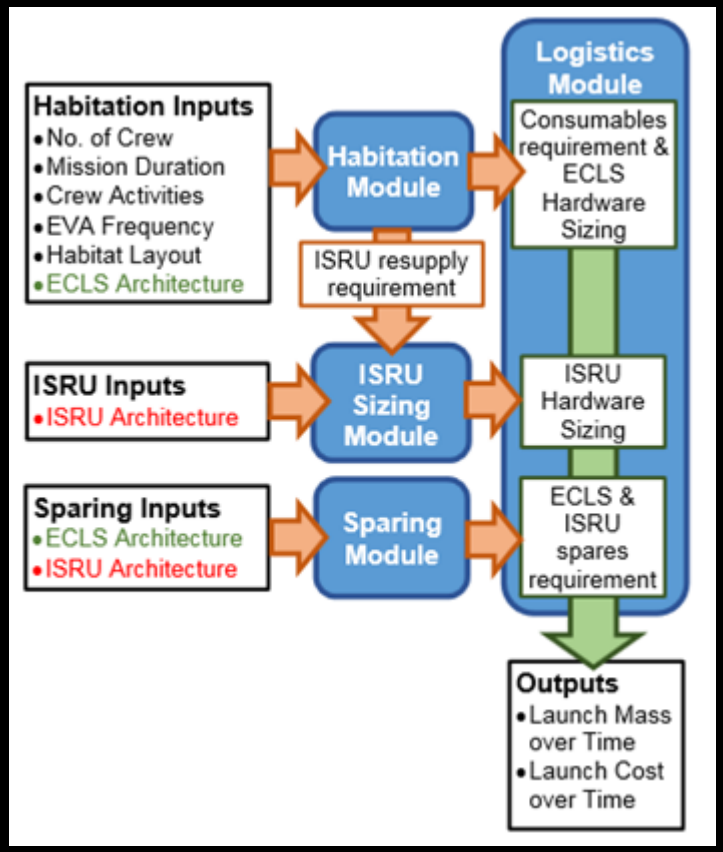
Current status

Groups selected from the first batch of applicants begin training. This training will continue until the launch in 2024. The group's ability to deal with prolonged periods of time in a remote location is the most important part of their training. They learn to repair components of the habitat and rover, train in medical procedures and learn to grow their own food in the habitat.

Risk assessment

An independent assessment of the technical feasibility of the Mars One mission , Koki Ho et al. , 65th International Astronautical Congress, Toronto

Link to PDF



⇨ Evaluation of the Mars One mission feasibility by the development of an integrated simulation environment.

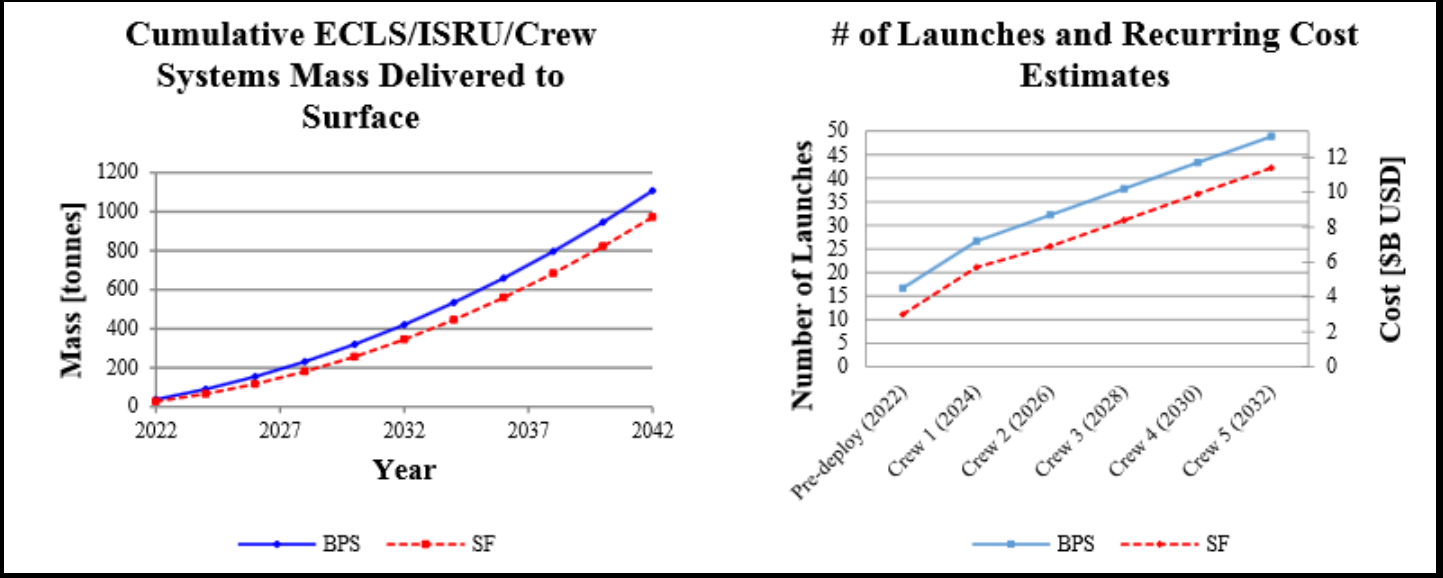
ISRU – In-situ resource utilization

ECLS – Environmental Control and Life Support

EVA – ExtraVehicular Activity

Conclusion of the study

→ Crop growth is sufficient will produce unsafe oxygen level. No oxygen removal system has been yet developped.
→ The ISRU technology to produce nitrogen, oxygen and water is only at a relatively low Technology Readiness Level.
→ The necessary spare parts number will increase significantly as the settlment grows which will make it impossible to be within the budget.



BPS – Biomass Production System **SF – Stored food**