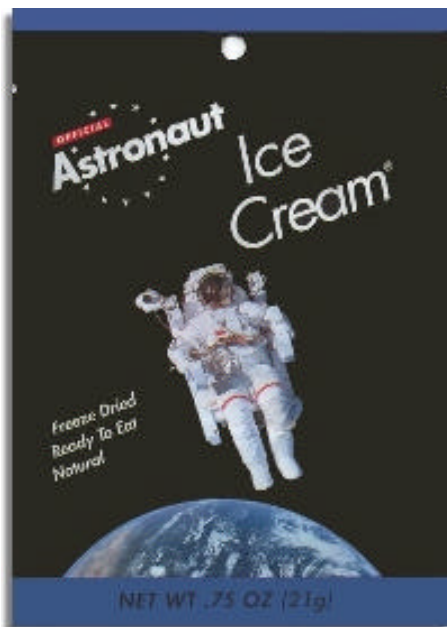


## Getting to Mars

Supplies: food, water, oxygen.

By: Elisabeth Ambrose



Freeze dried ice cream.

Every person on board a spacecraft bound for any Solar System body needs to have access to a minimum amount of food, water, and other supplies. Some of these items, such as air and water, can be filtered and

recycled, while others, such as food, cannot. For one day on the spacecraft, one person typically needs 1 kg of oxygen, 0.5 kg of dry food and 1 kg of whole food, 4 kg of drinking water, and 26 kg of wash water. Of these staples, 80% of the oxygen, 80% of the drinking water, and 90% of the wash water can be recycled. None of the food can be recycled. For a one way flight lasting 200 days, this translates to 3,440 kg of supplies needed. Once on the surface of Mars, oxygen and water can be manufactured by the astronauts. Food is therefore the only supply to bring to the surface, and for a 600 day stay for four

people, 1,200 kg of dry food and 2,400  
kg of whole food will be needed.

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