

and so did the flight controllers when they responded, but it was clear to everyone that the crew was in trouble. No one knew what had caused the problem. It was too late to fix it – the oxygen was all gone – and no one had any idea about how to rescue the crew.

Although a Saturn V rocket is 110 metres long and weighs 2,800 tonnes, only a tiny part of it is used by the crew to return to Earth. This little capsule is called the Command Module and it's not much bigger than a garden shed. Another small part, the Lunar Module, is designed to land on the Moon. The rest is left to drift through space before eventually crashing down into the sea. The crew knew they needed to preserve as much as possible of the capsule's air and power if they were to have any chance at all of a safe return. To help with this they decided to climb through a hatch into the Lunar Module. By using this as a sort of lifeboat they could preserve what oxygen they had left and save their reserves of electrical power while the flight controllers worked out what to do next.

They decided to climb through a hatch into the Lunar Module

There were several problems with this plan. The capsule was cramped inside but it was designed to carry three astronauts. The Lunar Module was designed to carry only two of them. This is because, during a normal Moon landing, two astronauts use it to go down to the surface while the third stays behind in orbit. This also meant that the Lunar Module was intended to be used for only a day and a half, not four days, which is how long the crew calculated they needed to get back to Earth.

An incredible 400,000 men and women were involved in the Apollo programme, and down on the ground hundreds of engineers and