Fake trip to Mars

Six volunteers from different nationalities took a fake trip to Mars that lasted 520 days, approximately 17 months. The experiment, which started 3rd June 2010 and finished 4th November 2012, intended to simulate a trip to Mars and studied the consequences that this long period of isolation could cause on the human body. The participants were kept locked in some facilities that represented the conditions that would take place in the long journey towards the red planet, located at a distance no less than 59 million kilometres from Earth.

In the past, taking a trip to cross a continent or the ocean to the Indies meant spending many days, months or even years. Nowadays, we are used to immediacy; with high-speed trains, nets of highways and planes we are able to travel long distances in a short time. But there is an exception: space trips. Humankind has the purpose to arrive to Mars and, for doing so, a very long trip must be taken. In order to know how would affect an astronaut's health being for so long in such a small place, an experiment simulating the trip to the red planet was carried out reconstructing the exact same conditions. We must consider that taking a trip to Mars and spending a month there, with our current space rockets, would mean 230 days to get there and 250 days for the return journey.

The facility where this experiment was being staged is not bigger than 180 square metres and their inhabitants should live autonomously, without any external contact. The participants were doctors, engineers or astronaut trainers and they could only communicate with the outside world through e-mails; although there was a fourteen-minute lag, which is the time it takes for communications from Mars to reach the Earth.

The six volunteers carried out numerous scientific experiments during the period of isolation and many of them were medical. At the end of the fictitious trip, the crew said that one of the hardest aspects had been not to talk to their families in real time and not to see the sun. However, scientists predict that in a real trip, the astronauts would be subjected to a much higher tension, because in an emergency they could not open the hatch and leave the spaceship. The lack of gravity and cosmic radiation are two more obstacles that would make the mission more difficult.

Reading comprehension and reflection

1. Translate into Catalan the following words from the text. Use a dictionary if you need to.

a) Fake
b) Isolation
c) Journey
d) Highway
e) Health
f) Rocket
g) Lag
h) Carry out
i) Crew
j) Hatch

2. How long would it take, using our present technology, to go to Mars?

3. And what about the return trip?

4. Give reasons as to why doctors, engineers and astronaut trainers have been selected for this simulated trip to Mars.

5. Underline all the true sentences:

a) The volunteers will stay on the simulated trip to Mars for 230 days.
b) The facility for the experiment offers no external direct contact, only through email.
c) Communication between Mars and the Earth takes approximately 20 minutes.
d) This experiment is important to understand how humans can adapt to the conditions of life on Mars.

6. The crew said that one of the hardest aspects had been not to talk to their families in real time and not to see the sun. Imagine you are an astronaut selected for this simulated trip to Mars. What would be difficult for you?