Time:25 min

The text asserts that if human wants to travel to mars, it will be a problematic and somehow impossible even comparing with traveling to moon. But lecturer believes that although it will be challenging, it is possible as far as scientists make many solutions for the problems of this mission.

First of all the author claims that a round-trip to mars and back, which takes about two years, requires great amount of supplies, like water, food and oxygen but the capacity of space shuttles are too limit for this amount of supplies. On the other hand professor asserts that by a new method called, hydroponic astronauts can cultivate crops in the water instead of soil. By using this method they can recycle the wasted water and take it as drinking water. Furthermore crops absorb carbon dioxide and release oxygen. So she thinks that the problem of supplies can be solved.

Second, the author asserts that spending along time in a zero-gravity environment has negative effects on astronaut’s body including lower bone density and decreasing in muscle mass. Conversely, the lecturer insists that as far as we as humans had so many long space travels in the history, there are several techniques for astronauts to maintain their muscle mass with regular exercises. Also they can keep their bone density by using certain substances like calcium.

Third, the author believes that the level of space radiations which emission from sun is high and we should have protective space ship in front of this danger. The protection needs a shield and it makes the ship too heavy to fly. In contrast the professor asserts that the level of radiation is not in danger zone most of the times and we can monitor this level in the space shuttle in order to using a small and light shelter in case of danger and it will not be a problem as the priors were not.