Mahsan Mirfakhar- HW8 - integrated TPO50:

The reading states that there are some problems sending humans to Mars that they did not have in Moon missions. The lecturer believes that humans can solve problems and proposes several solutions.

First of all, the author points, that the during of round-trip and back gets longer time to Mars than Moon. That is nearly about two years, but travel to the Moon takes a few days; therefore, bringing supplies such as food, oxygen, and water is easier for the Moon trip. Without these necessities, the mission is impossible. The speaker argues that astronauts can replace hydroponic being a technical process that plants’ root is in water rather than in soil and requires a littler place, instead of essential materials they need. In addition, humans are capable of cultivating there. Moreover, they can recycle wastewater as clean water vapers, then provide drink water by planting. Furthermore, plants create fresh air by absorbing carbon dioxide and releasing oxygen.

Second, the writer maintains that tolerating a zero-gravity environment for many months has some negatives effects on astronaut health. For example, a decrease in their muscle mass or their bone density might happen. Conversely, the professor indicates that having experiences in previous astronaut missions lead them to use several techniques to manage zero-gravity safely. For example, regular exercising prevents a reduction in muscle mass. Likewise, taking vitamins and minerals like calcium declines the probability of decrement in bone density.

Finally, the context claims that astronauts encounter some dangerous levels of space radiations. The Earth’s magnetic protect humans from those radiations when they are on the Earth. Besides, they are not able to construct the shield because it added too much weight to the ship. But the teacher states that astronauts expose to hazardous solar radiation occasionally no all the time. They can solve this problem by bringing some special equipment monitoring solar radiation and a small shelter with a low-weight shield against radiation. Consequently, in dangerous intervals, they should spend their time in the shelter.

Time: 34min

Words:332