The reading is about problems which astronauts will encounter in their mission to the Mars. Although, some missions to the Moon have been successfully done in the 1960s and 1970s, travel to the Mars is more challenging due to the longer distance from the Earth and it takes about two years compared to the moon trip which was about a few days. The author brings out three problems in which astronauts will face. Besides, the lecturer points out some solution in order to solve these problems.

Firstly, one significant problem is their food, water and oxygen supplies which are not enough for their whole journey in the space and also the size of the space craft is limited for carrying a large amount of supplies. However, the speaker provides a technique which is called hydroponic. This is a technique of growing plants in the space in which astronauts can cultivate food crops and recycle waste water in order to use it as a fresh drinking water. Furthermore, this plants would release oxygen which is essential for them.

Another problem which mentions by author is the zero-gravity environments for many months which will lead to a massive decrease in the muscle mass of humans and their bone density. During this time, these severe effects will occur, so in this regard the lecturer points out several techniques that are using by the astronauts such as; regular exercise and taking vitamins which would help them.

Third, astronauts on this missions to the Mars are exposed to highly dangerous levels of space radiation which comes from the sun and because of the absence of Earth’s magnetic field, which protects them from this radiation, there should be placed a shield. On the other hand, these shields will add too much weight to the space craft. The speaker mentions that these radiations are occasionally and some special equipment can be beneficial for them. Furthermore, small shelter can be placed in order to protect them during that time.

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