

Wenzao Ursuline University of Languages

English 8

Passport Project

Theme 3

Topic: The potential for colonization of Mars

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With the over-develop by humans, our earth becomes worse and worse. Considering the problem of the end of the world. Many scientists start to find another planet that can be a suitable place for humans. Though much careful planning, scientists discover that Mars is the best planet for humans to live. For the environment on Mars is closest to Earth than other planets and regraded to have liquid on it. An expert said, "Where there is water, there is life". Recently, scientists are planning how to remodel Mars and transform it into a proper place for people. Martian immigration is not easy work. If we succeed, then this plan may be the biggest progress to humans.

Why has the Mars been our premier chaise for immigration? First, the shorter distance can make the probability of moving to Mars much higher. The planets between the Earth respectively are the Venus, which is much nearer the sun, and the other one is the Mars. In many aspects of the Venus, when it comes to the size, quantity, density and even the composition, it is very familiar to the Earth. However, for the sake of thick atmosphere and the shorter distance to the sun, the temperature of the Venus' surface is too high to five in the Venus. The Mars stands to reason that it is the top chaise for the human beings to live in. Second, a day in the Mars is just 1 hr longer than in the earth. Moreover, it contains abundant of minerals and solid water. As long as we can overcome the difficulty, there is develop ability in the Mars. Therefore, we need to push aside all obstacles and difficulties.

We have sum up three main problems, though Mars is the closest planet in the universe, the distance between Mars and Earth is also a problem, every two years or so, Mars and Earth reach their closest point, called "opposition", when Mars can be as close as 55,000,000 km from Earth. The journey from Earth to Mars need to takes around 150-300 days. And the reason why we need to spent such long time to arrive there is that both Earth and Mars are orbiting around the Sun. We can't point directly at Mars and start firing the rockets, because by the time we got there, Mars would have already moved. Instead, spacecraft launched from Earth need to be pointed at where Mars is going to be. The other constraint is fuel. It really just depends on how much fuel you're willing to burn to get there. More fuel, shorter travel time.

Second, the radiation is also the factor we concern about, while studies have shown that the human body can withstand a dose of up to 200 rads without permanent damage, prolonged exposure to the kinds of levels detected on Mars could lead to all kinds of health problems – like acute radiation sickness, increased risk of cancer, genetic damage, and even death. Moreover, the difference in gravity would negatively affect human health by weakening bones and muscles. There is also risk of osteoporosis and cardiovascular problems.

Third, the environment between Mars and Earth has many different ways, such as Mars climate is much colder than Earth, with mean surface temperatures between (-87 and -5 °C; -125 and 23 °F) depending on the season and latitude. Moreover, water on Mars is scarce, because almost all water on Mars today exists as ice, though it also exists in small quantities as vapor in the atmosphere. The atmosphere of Mars is too thin to easily support life. Also, because Mars is about 52% farther from the Sun, the amount of solar energy entering its upper atmosphere per unit area (the solar constant) is only around 43.3% of what reaches the Earth's upper atmosphere. Global dust storms are common throughout the year and can cover the entire planet for weeks, blocking sunlight from reaching the surface, as well interfering with communications with Earth.

Although emigrating to Mars has many difficulties to overcome, if we successfully emigrate to Mars, it will be a big improvement for human beings. However, what will happen to us after the real immigration to Mars is still unknown. Maybe we can quickly adapt to the new environment and create a new human society on Mars.

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