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**Mars Colonization**

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There are multiple scenarios for known risks that can have a global impact on the planet. From the perspective of humanity, these can be subdivided into survivable risks and terminal risks. Risks that humanity pose to itself include climate change, the misuse of nanotechnology, a nuclear holocaust, warfare with a programmed superintelligence, a genetically engineered disease, or a disaster caused by a physics experiment. Similarly, several natural events may pose a doomsday threat, including a highly virulent disease, the impact of an asteroid or comet, runaway greenhouse effect, and resource depletion. The most convenient place for relocation could be Mars.

For years Mr. Musk, the billionaire founder of the SpaceX rocket company, has been offering hints of his desire to colonize the big red planet. This year at the International Astronautical Congress he finally provided engineering details, optimistic timelines and a flight simulation video. Mr. Musk estimated it would cost \$10 billion to develop the rocket, and he said the first passengers to Mars could take off as soon as 2024. Each of the SpaceX rockets would take 100 passengers on the journey to Mars, with trips planned every 26 months, when Earth and Mars pass close to each other. Mr. Musk has talked of the Interplanetary Transport System.

To establish a self-sustaining Mars civilization of a million people would take 10,000 flights, with many more to ferry equipment and supplies. According to his estimations it

would take 40 years to a century before the city on Mars became self-sufficient. How the colonists will breathe on Mars is less of an issue. The International Space Station has already demonstrated the successful use of technology that turns carbon dioxide into oxygen [1].

Musk has often stated that the goal for his company SpaceX is to send people to Mars to make humanity a “multiplanetary species” in order to ensure survival in case some calamity like an asteroid strike befell the Earth. But he admitted that SpaceX would probably not be able to do it alone financially and would need support from public-private sectors. Mr. Musk said the first flights would be “fairly expensive” but ticket prices might eventually fall to between \$100,000 and \$200,000 a person.

Mr. Musk is confident that his company could pull off his vision, but he said he would not be among the first colonists, saying he wants to see his children grow up. The chances of dying on that first trip to Mars, he said, are “quite high.”

Many scientists say that the project is ambitious, technically feasible and according to US officials “possible, but not probable” [2]. Yet it is really fascinating to follow the update in the field and dream of a personal space trip one day.

#### References:

1. Elon Musk’s Plan: Get Humans to Mars, and Beyond [Electronic resource]. – Mode of access: [https://www.nytimes.com/2016/09/28/science/elon-musk-spacex-mars-exploration.html?\\_r=0](https://www.nytimes.com/2016/09/28/science/elon-musk-spacex-mars-exploration.html?_r=0). – Date of access: 05.03.2017.
2. Regarding Intelligent Life [Electronic resource]. – Mode of access: <http://www.costaricantimes.com/regarding-intelligent-life/49422>. – Date of access: 05.03.2017.