

**“What is the most important engineering feat that has promoted discovery?”**

Throughout the 20<sup>th</sup> century, there have been significant engineering innovations that have impacted the human race. As a result, there has been rivalry among countries to be the most technologically advanced. The competition was sparked by the Soviet Union on October 4, 1957 in the midst of the Cold War with the first spacecraft ever to be made, Sputnik. From this point on, space travel has been a controversial issue. It has opened up the doors for many other engineering modernizations.

After the launching of Sputnik, there was a race among countries to journey into space. From Yuri Gagarin (USSR; first man in space) to Edward Wright (US; first man to perform a spacewalk), enmity drove countries to accomplish the seemingly impossible. Today, there are thousands of satellites in orbit. As a result of space travel, we are able to research many different aspects of human health. Satellites help us monitor the improvement of global communications, weather forecasting (climate change, deforestation, etc.), the depletion status of the ozone layer, among other uses. Initially, space travel was just an accomplishment that allowed countries to remain technologically elite; the effects have been felt throughout society in everyday life. For example, it sparked ideas such as Velcro, freeze dried food and desktop computers.

Now, we are still exploring ways to take one more step forward. As competition enumerates and challenges arise among nations, we will be forced to think resourcefully and provide answers to different questions. Opportunities in space may help uncover breakthroughs humans currently seek. There have been hypotheses made of gravitational force causing radiation (due to emissions from quantum system). Although it has not been directly distinguished, it has been indirectly proven. The answer may one day reveal

itself through exploration. Another examination is fitness; one may feel greater stress in an environment unlike earth's due to gravitational force. This idea may be used for athletic training and the rehabilitation of the older population. Prolonged exposure in space results in a higher tolerance for repetition, thus making human beings more durable. From this principle, nutritionists and physiologists may unearth different strategies for physical fitness and life longevity. Also, current researcher Ray Garbos says that aerospace matters will be the answer to international problems like the eventual over population. Perhaps humans may one day commercialize other bodies other than earth. To do this, a wide range of professions must be incorporated; for example geology (to study the terrain of the body) and material engineering (to figure what substances can withstand the environment). Only time and effort will show what we may achieve as the human race.

However, in most cases the credit is not to an individual, but rather to the profession as a whole. There is no one engineering feat that has been independent of another; they are all intertwined. There would be no hope for space travel if it were not for electronics, computers, petrochemical technologies and much more. The "space race" was that which promoted the most innovation and primarily sparked inventions in society. Competition drives our world economy; the desire to excel promotes greater discovery among nations. Space travel was and shall be the vehicle that future researchers use to reach greater heights and revolutionize planet earth.

"In this unbelievable universe in which we live there are no absolutes. Even parallel lines, reaching into infinity, meet somewhere yonder." - *Pearl Buck*