

The space race essay sample



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Introduction

The space race was basically a competition of space exploration between the USA and the Union of Soviet Socialist Republics (USSR) who by then were the two superpowers, the race grew as a result of an increased rivalry between the USA and the USSR immediately after the second world war with each country trying as much as possible to outwit the other in technological supremacy in the military and later aeronautically. This race was actually induced by civilian and military goals as well as political propaganda doing the rounds immediately after the Second World War (Britta, C, 3)

This race basically took place between the period of 1957-1975 and it involved continued attempts to explore the space through the use of artificial (man made satellites) in an attempt to take human beings into the space and eventually on the moon. (Britta, C, 3) Basing on the above expose this research paper thus seeks to provide an in-depth discussion on the controversy of space race between the USA and the USSR with an aim to clearly show the process and developments, benefits and the effects of the space race on humanity and the society in general

Process and developments in the space race

The space race between the USA and the USSR began with the launch of the Sputnik 1 into the outer space by the USSR. Sputnik 1 was actually the very first man made satellite to go round or orbit the planet earth. This move actually made the sponsoring country (the USSR) be the first space super power. The launching of sputnik 1 basically spurred a lot of intense political

debates and fear among the Americans as they had assumed superiority in all facets of technology (McCurdy, 7)

Following the move by the USSR, the USA responded by initiating a huge educational program in its bid to get back its technological supremacy. This was brought in by the congress through enacting the National Defense Education Act into law, the bill was to author was to allow the US government to spend over \$1billion in assisting bright students through vocational education to enable them acquire the required expertise in engineering and technological fields. (McCurdy, 7) This was also done to fill the emergent vacuum that existed within the defense industry due to lack of manpower. This move was commonly referred to as the sputnik crisis.

As the Americans strategized, on how to counter their opponents, the USSR in the meantime were busy building different rocket versions of the Sputnik 1 in order to affirm their space technological prowess. (Larson, 3) The USA finally responded by launching the Explorer 1 which was actually their first artificial satellite into the space, this came after several unsuccessful tries were made at the Cape Canaveral. After these initial moves by the two countries several expeditions were made into the space now involving not only satellites but also animals and human beings.

The USA took the lead to be the first country to take animals into the space when it took fruit flies on captured German rockets into space in 1946. This was followed by the USSR who in the contrary decided to send the first animal (a dog) into the orbit of the earth. The dog that was known as Laika (Barker in English) was taken into the orbit by Sputnik 2 in 1957. (Larson, 3)

Although the Laika was never meant to come back to earth, it died seven hours after landing into the orbit thus being unsuccessful. In 1960 the USSR again decided to try out sending dogs to space, this time round it was 5 dogs among which two Belka and Strelka went round the earth and returned back successfully

In response to the USSR success of having taken dogs to the orbit and returned successfully the USA decided to import chimpanzees from Africa of which were sent into the space, before sending human beings into the orbit. In 1968 the USSR through their newly found rocket known as Zond 5, launched turtles which later were to be the very first animals to fly over the moon. (Larson, 3)

After this tests and success the USSR again became the first country to send human beings into space on April 12 1961 through the Vostok rocket that carried Cosmonaut Yuri Gagarin, the first man in space, who went round the earth in 108 minutes, In response, the USA Sent Alan Shepard into the orbit, just 23 days after the USSR human exploration. After which the US sent successive successful human beings to orbit the earth and into the moon through Apollo 1 thus surpassing their rivals USSR, to become the second space super powers. (Newton, D, 22)

Effects

Due to the nature and scope of the exploration exercises, more resources in terms of funds and human labour were actually needed by the two countries to compete effectively in the space exploration, this lead to the governments of the respective countries, spending so much money on the space

exploration, at the expense of other needy projects. (Taubmann, 6) For instance the USA National Aeronautics and Space Administration (NASA) laboratories employed more than 8000 employees in the aeronautic research agency. The total expenditure that the USA used in the space race between the duration of 1957-1975 is basically approximated to be equivalent to over \$100 billion according to the 2004 inflation rate.

Equally the explorations lead to loss of many lives that include pilots and scientists. For instance in the USA Apollo 1 three pilots namely: Ed White, Grissom and Roger Chaffee all lost their lives during a ground test of the rocket where they got burnt to death in 27th January 1967. (Beschloss 55) In April 23rd the same year USSR also lost its astronauts in the Soyuz 1 and 11 through the death of Colonel Vladimir Komarov. (Boyle, P 15)

Benefits

Although the space race was basically fraught with danger, it had a lot of positive effects in that so many inventions and innovations today are basically as a result of the space race. These innovations have actually made life easier and comfortable.

According to (Britta, C, 3) academic fields such as medicine, micro technology, engineering and chemistry greatly benefited from the space race in terms of the scientific and technological advancements made then. For instance, the famous Global Positioning System (GPS) that is widely used in land, air and sea transport, was initially pioneered by the US secret Military Space Research during the old days of space race. Equally in the

field of medicine life saving drugs have continued to be made in the outer space zero gravity environment.

Conclusion

As much as people would say that the space race basically an investment that was not worth the huge expenditures attributed to it given its sole intention which was to outwit the other among the two nations(USSR and USA)the scientific and technological benefits that are being experienced to day are basically attributable to this past history-the space race. It's only important that when such explorations are made due concern is given to the Mother Nature and human life.

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