Sputnik and the Space Race

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Background

After WWII ended the Cold War had just begun. Within this war between two great powers competed in the battle of the Space Race, the U.S. and the Soviets. On October 4, 1957 the Soviet Union launched the first object to be placed in Earth’s orbit, Sputnik. This was a surprise to the United States who did not want to lose much ground to the Soviets. In 1958, the United States launched Explorer I which started American involvement in the Space Race. After about 12 years, the U.S. made it to the moon first, which made them the winners of the Space Race.
Facts

- Officially started October 4, 1957 with the launch of Sputnik 1.
- Sputnik made the U.S. feel technologically inferior and made American fear they were behind in developing long range missiles.
- The blow of Apollo 8 to Russia forced the Soviets to believe the possibility that American could land on the moon first.
- Apollo 11 landing on the moon was what caused America to win the space race on June 16 - 24, 1969
Sputnik

Sputnik I
- First artificial satellite
- Size of a beach ball
- took 98 minutes to orbit Earth

Sputnik II
- contained a dog named Laika

Sputnik III
- Cone shaped satellite
- 3.57 meters high
- Was a space laboratory for the study of earth’s magnetic fields and radiation belt.
- Stayed in orbit almost 2 years.
U.S.S.R. Spacecraft

Luna 1- First man made object to orbit the sun
Luna 2- First object to collided the moon
Luna 3- Orbited the moon and took photographs of 70% of the surface
Venus 3- First manmade object to collided Venus
Luna 9- First spacecraft to soft land on the moon
Zond 5- Carried a biological payload that included two turtles around the moon and returned six days later
U.S. Spacecraft

Explorer 1- First American satellite to reach Orbit, carried scientific equipment
Explorer 2- Launched but failed to reach orbit
Vanguard 1- U.S. satellite that remained in orbit for three years
Pioneer 1- Launched up to 70,700 miles
Pioneer 4- Was launched on a earth to moon trajectory but it passed about 37,000 miles from the moon and fell into solar orbit
Tiros 1- First successful weather satellite
Discovery XIV- First camera equipped spy satellite
Surveyor 1- First U.S. rocket to land softly on the moon
Saturn 5 - Apollo 11 rocket which won the space race
Timeline 1957 - 1959

- Oct 4, 1957 - U.S.S.R. launches Sputnik 1
- Nov 3, 1957 - U.S.S.R. launches Sputnik 2
- Jan 31, 1958 - U.S. launches Explorer 1
- Mar 5, 1958 - U.S. launches Explorer 2
- March 17, 1958 - U.S. launches The Vanguard 1
- May 15, 1958 - U.S.S.R. launches Sputnik 3
- Oct 1, 1958 - NASA is formed
- Oct 11, 1958 - Pioneer 1 is launched
- Jan 2, 1959 - Luna 1 is launched by the U.S.S.R.
- Mar 3, 1959 - Pioneer 4 is launched
- Sept 12, 1959 - Luna 2 is launched
- Oct 4, 1959 - Luna 3 Orbits the moon
Timeline 1960 - 1969

Apr 1, 1960 - Tiros 1 is launched by the U.S.
Aug 18, 1960 - U.S. launches Discovery XIV
May 5, 1961 - Alan B. Shepard becomes first man in space by U.S.
Dec 14, 1962 - Mariner 2 passes Venus and goes into solar orbit.
March 18, 1965 - U.S.S.R. has first space walk
June 3, 1965 - U.S. has their first space walk
Nov 16, 1965 - U.S.S.R. launches Venus 3
Feb 3, 1966 - Luna nine is first spacecraft to soft land on the moon
June 2, 1966 - Surveyor 1 is first U.S. spacecraft to soft land on the moon.
Sept. 15, 1968 - Zond 5 is launched
July 16, 1968 - Apollo 11 was launched
June 20, 1969 - Neil Armstrong and Edwin "Buzz" Aldrin became the first men to walk on the Moon in Apollo 11
Impact on the U.S.

- When Sputnik was launched, it cause Americans to fear they have technologically bypassed by Russia
- Interest in space exploration
- U.S. schools now focus more on math and science
- The space race costed the U.S. about $35 billion
For the Space Race
- It was a large Cold War success
- It caused nonaligned nations to move between the two countries in search of the stronger nation.

Against the Space Race
- Should have spent money on helping the impoverished
- Was only for entertainment and competition between the nations
- No long term benefit
Citations


