5HD450 Chapters in History of the Cold War

6. Space Race.



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Early stage

- Competition for space flight supremacy (and thus national security) between the US and the USSR
- Including intercontinental space bombers, IC ballistic missiles, artificial Earth satellites, space probes to the Moon, Mars, and Venus, human space flights to orbit and the Moon





- German missile technologies and scientists crucial for future research (V-2 rockets)
- 1955 Americans and Soviets announced to launch artificial satellites

Artificial satellites

- June 1957 first successful US intercontinental ballistic missile (ICBM)
- August 1957 USSR developed first fully operational (ICBM) R-7 next projects based on the same design
- October 1957 Soviets launched Sputnik 1
- December 1957 US satellite launch failure
- USSR to the US: *"under the Soviet program of technical assistance to backwards nations"*
- January 1958 US launched satellite Explorer I
- April 1958 NASA and a special committee led by the President



First star/universe sailors

- **1957 US Project Mercury** to put a man into Earth orbit and return him safely, ideally before the USSR (7 astronauts)
- April 1961 first human in space and on the orbit
 Yuri Gagarin on Vostok 1 ("Поехали!" Poyekhali! Let's go!)
 August Gherman Titov on Vostok 2
- May 1961 first American in space Alan Shepard on Freedom 7
- 1962 US Project Gemini to develop space travel techniques to support Project Apollo – 10 two–astronaut (later three) crews, great success
- February 1962 John Glenn first American on Friendship 7 on the orbit
- June 1963 first woman and civilian in space Valentina Tereshkova on Vostok 6 (just for propaganda)



To the Moon ...

... and back

- 1959 USSR first probes within Luna Program (Luna 2 and 3)
- 1961 US first probes within Ranger program failures, Ranger 4 and Ranger 7 finally successful
- Summer 1961 US Project Apollo (Kennedy's We choose to go to the Moon speech)
- Kennedy: "... I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth."
- 1964 USSR Voskhod and Soyuz Programs first three-cosmonaut crew + shirt-sleeve environment
- 1965 first Soviet spacewalk
- July 1969 Apollo 11 first humans on the Moon Neil Armstrong, Michael Collins, Edwin Aldrin
- US plans for civilian space shuttles, space stations (Skylab) in Earth and Moon, first humans on Mars in 1986



After unsuccessful attemps USSR focused just on the Earth orbital space stations (Salyut)

US-Soviet/Russian cooperation

- 1963 Kennedy proposed cooperation in reaching the Moon

 USSR rejected (?)
- April 1972 Apollo–Soyuz Test Project began
- July 1975 US astronauts and Soviet cosmonauts met on the orbit
- 1970s Americans developed Space Shuttle reusable orbital spacecraft; Soviets continued with their space station (Salyut, Mir, supported by Soyuz spacecraft)
- 1990s Shuttle–Mir Program

 joint Russian–American crews
- International Space Station (ISS)





The end of the race

- December 1991 dissolution of the USSR
- US Space Shuttle program ended in 2011
- Achievements satellites, International Space Station, more investments on research and education, spin-offs
- R-7 rockets are still used for Soyuz and Progress spacecrafts, ISS





Readings & videos

- Documentaries BBC Space Race (4 episodes)
 - <u>https://www.youtube.com/watch?v=ST4emxOd9Qo</u>

National Geographic & Discovery HD Channel Space Race: Untold Story

<u>https://www.youtube.com/watch?v=o3re297eMS4</u>

BBC The Cold War – Sputnik

<u>https://www.youtube.com/watch?v=3uGT0mZOhR0&list=PL3H6z037pboGWTxs3xGP7HRGrQ5dOQdGc&index=8</u>

Cold War History Videos

- <u>http://www.history.com/topics/cold-war/cold-war-history/videos</u>
- <u>http://www.bbc.co.uk/history/worldwars/coldwar/</u>
- Specialized Resources / Collections / Cold War Files
 - <u>https://www.wilsoncenter.org/program/cold-war-international-history-project</u>
 - <u>http://digitalarchive.wilsoncenter.org/collections</u>
 - <u>http://news.bbc.co.uk/onthisday/hi/themes/world_politics/cold_war/default.stm</u>
 - <u>https://web.archive.org/web/20080411004848/http://www.coldwarfiles.org/index.cfm?this</u> <u>unit=0&fuseaction=events.list</u>
 - <u>http://www.avclub.com/special/cold-war/timeline</u>



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