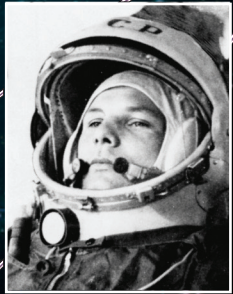


50 years of spaceflight

The launch of Sputnik by the Soviet Union in 1957 fascinated millions of people, and shifted America's space programme into high gear. The Space Race between the world's two superpowers had begun. When in the early 1990s the United States and Russia agreed to build the 16-nation International Space Station, a contest that had begun in Cold War fear finally became a partnership in peace

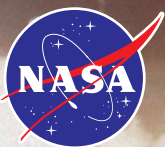
Sputnik 1: "Bleep-bleep" radio signals heard throughout world. Satellite makes 1,440 orbits of Earth over three months, travelling about 37 million miles



Yuri Gagarin: Makes one orbit of earth at altitude of 203 miles. His **Vostok 1** capsule reaches speed of 17,560mph during 108-minute mission



Alan Shepard: Makes 15 minute sub-orbital flight in **Mercury** capsule. Shepard later commands Apollo 14 mission and spends more than nine hours on moon



Oct 1, 1958: NASA becomes operational



May 25, 1961: U.S. President **John F. Kennedy** commits America to landing on moon within decade. His speech triggers **Apollo** programme and construction of **Saturn V** moon rocket

Three-stage rocket stands over 36 storeys tall. First stage has cluster of five engines capable of producing 7.5 million pounds of thrust



Oct 4, 1957: **Sputnik 1** launched
Nov 3: **Sputnik 2** carries first living passenger, a dog named **Laika**

Apr 12, 1961: Russian **Yuri Gagarin** becomes first man in space
May 5: **Alan Shepard** becomes first American in space

Jan 31, 1958: First U.S. satellite, **Explorer 1**, discovers Van Allen radiation belts

Feb 20, 1962: **John Glenn** is first American to fly complete earth orbit

Mar 18, 1965: Russian **Alexei Leonov** makes first space walk

Jul 20, 1969: America's **Apollo 11** lands first man on moon

Apr 19, 1971: USSR launches three-man crew to **Salyut** – world's first space station

Jul 15, 1975: **Handshake in space** – Apollo capsule docks with **Soyuz**, effectively ending Space Race

Apr 12, 1981: **Columbia** flies into orbit, beginning shuttle era

Nov 15, 1988: Soviet shuttle **Buran** makes first and only flight, unmanned. It lands automatically after two orbits

Apr 24, 1990: NASA launches **Hubble Space Telescope**. Shuttle service flights extend its working life to 2013

Nov 20, 1998: Russia launches **Zarya**, first module of **International Space Station**

Feb 1, 2003: Shuttle **Columbia** disintegrates during re-entry with loss of all seven crew

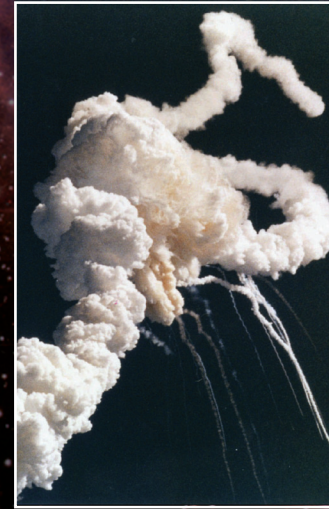
2007: China, Japan and India announce plans to establish manned-moon bases by 2020

Oct 15, 2003: China becomes third country to send a human into space

"That's one small step for man, one giant leap for mankind" – **Neil Armstrong**
July 20, 1969



May 14, 1973: U.S. launches **Skylab** space station, built from converted Saturn V upper stage. Three crews visit station over next nine months



Jan 28, 1986: All seven crew members perish when shuttle **Challenger** explodes 70 seconds after launch



Hubble: Telescope provides unique views of universe, ranging from our own solar system to fledgling galaxies forming not long after **Big Bang** 13.7 billion years ago

