

MILITARY
HISTORY
THE RACE
TO THE MOON
1955 - 1969

The image features a camouflage pattern background. The word "MILITARY" is written in a large, white, distressed, blocky font with a horizontal line above and below it. Below that, the word "HISTORY" is written in a large, black, bold, sans-serif font. Underneath "HISTORY", the subtitle "THE RACE TO THE MOON" is written in a white, bold, serif font, and "1955 - 1969" is written in a white, bold, sans-serif font at the bottom.

THE COLD WAR

THE STRUGGLE FOR POWER AND INFLUENCE BETWEEN THE USA AND USSR

COLD WAR NUCLEAR TIMETABLE

1940s The Manhattan Project in WWII	1950s Peak of Cold War The Cuban Missile Crisis 1962	1960s US/USSR tension	1970s Nuclear treaties (SALT, etc.)
1980s Reagan and the Evil Empire	1990s USSR collapses former Republics	2000s Islamic terrorism	

CAUSES

- EFFECTS OF WORLD WAR II
- SUPERPOWER ECONOMIES BOOM
- NUCLEAR WEAPONS ARMS RACE
- EASTERN EUROPE TERRITORIAL CONFLICT

MAJOR EVENTS

- MARSHALL PLAN
- BERLIN AIRLIFT
- CHINESE REVOLUTION
- MCCARTHYISM
- KOREAN WAR
- SPUTNIK
- CUBAN MISSILE CRISIS
- VIETNAM WAR
- MOON LANDING
- BERLIN WALL FALLS

ATOMIC TECHNOLOGY

NUCLEAR FUSION

LEADERS

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HARRY S. TRUMAN	JOHN F. KENNEDY	RICHARD NIXON	RONALD REAGAN

IMAGE SOURCE: WIKIMEDIA COMMONS

THE MOON RACE

1957-1969

THE LAUNCH OF SPUTNIK 1

On October 4, 1957, a Soviet R-7 intercontinental missile launched Sputnik ("traveler"), the world's first artificial satellite and the first man-made object to be placed into the Earth's orbit. Sputnik's launch came as a surprise to most Americans. This summoned up the American spirit for space exploration and the race to the moon was underway.

1957

1957–1958

Date	Significance	USSR	US
21 Aug 1957	First intercontinental ballistic missile (ICBM)	R-7 Semyorka	
4 Oct 1957	First artificial satellite First signals from space	Sputnik 1	
3 Nov 1957	First dog in orbit (Laika)	Sputnik 2	
31 Jan 1958	First US satellite, detection of Van Allen radiation belts		Explorer 1- ABMA
17 Mar 1958	First solar powered satellite		Vanguard 1- NRL
18 Dec 1958	First communications satellite		Project SCORE- ABMA

1959

Date	Significance	USSR	US
2 Jan 1959	First rocket engine restart First lunar spacecraft First detection of solar wind	Luna 1	
4 Jan 1959	First human-made object in heliocentric orbit	Luna 1	
17 Feb 1959	First weather satellite		Vanguard 2- NASA
28 Feb 1959	First satellite in a polar orbit		Discoverer 1- USAF/ARPA
25 Jun 1959	First spy satellite to carry a camera (didn't achieve orbit)		Discoverer 4- USAF/ARPA
7 Aug 1959	First photograph of Earth from orbit		Explorer 6- NASA
14 Sep 1959	First impact into another celestial body (Moon)	Luna 2	
7 Oct 1959	Photo of far side of the Moon	Luna 3	

1960

Date	Significance	USSR	US
1 Apr 1960	First Imaging weather satellite		TIROS-1-NASA
5 Jul 1960	First successful US spy satellite		GRAB-1-NRL
11 Aug 1960	First satellite recovered intact from orbit		Discoverer 13-SAF/ARPA
1 Aug 1960	First passive communications satellite		Echo 1A-NASA
18 Aug 1960	First successful recovery of film from an orbiting satellite First aerial recovery of an object from Earth orbit		Discoverer 14-SAF/ARPA
19 Aug 1960	First animals and plants returned alive from space (Belka and Strelka)	Sputnik 5	

1961

Date	Significance	USSR	US
12 Feb 1961	First launch from Earth orbit of upper stage into a heliocentric orbit	Venera 1	
12 Apr 1961	First human spaceflight (Yuri Gagarin) First orbital flight of a manned vehicle	Vostok 1	
5 May 1961	First pilot-controlled space flight (Alan Shepard) First complete human spaceflight		Freedom 7
19 May 1961	First planetary flyby (Venus)	Venera 1	
6 Aug 1961	First crewed mission lasting a full day (Gherman Titov).	Vostok 2	

1962

Date	Significance	USSR	US
7 Mar 1962	First orbital solar observatory		OSO-1-NASA
26 Apr 1962	First spacecraft to impact the far side of the Moon ¹		Ranger 4-NASA
10 Jul 1962	First active comm satellite		Telstar-AT&T
12 Aug 1962	First dual crew spaceflight First ship-to-ship radio contact (Andriyan Nikolayev and Pavel Popovich)	Vostok 3 Vostok 4	
29 Sep 1962	First artificial satellite constructed by a non-superpower	Canada — Alouette 1	
14 Dec 1962	First planetary flyby by a US mission (Venus)		Mariner 2-NASA

1963

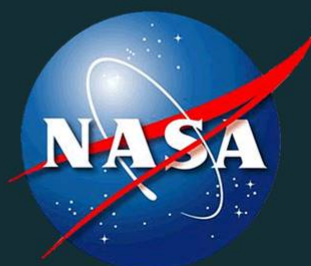
Date	Significance	USSR	US
16 Jun 1963	First woman in space (Valentina Tereshkova) First civilian in space	Vostok 6	
19 Jun 1963	Five-day human spaceflight record	Vostok 5	
19 Jul 1963	First reusable piloted spacecraft and the first spaceplane (X-15, <i>suborbital</i>)		X-15 Flight 90-NASA
26 Jul 1963	First geosynchronous satellite		Syncom 2-NASA
5 Dec 1963	First satellite navigation system		NAVSAT-USN

1964

Date	Significance	USSR	US
19 Aug 1964	First geostationary satellite		Syncom 3-NASA
12 Oct 1964	First multi-person crew (3)	Voskhod 1	



ROSCOSMOS



1965

Date	Significance	USSR	US
18 Mar 1965	First extra-vehicular activity ("space walk")	Voskhod 2	
23 Mar 1965	First piloted spacecraft orbit change		Gemini 3-NASA
14 Jul 1965	First Mars flyby		Mariner 4-NASA
29 Aug 1965	Eight-day human spaceflight record		Gemini 5-NASA
15 Dec 1965	First orbital rendezvous (station-keeping, no docking) ²		Gemini 6A / Gemini 7-NASA
18 Dec 1965	14-day human spaceflight record		Gemini 7-NASA

1966

Date	Significance	USSR	US
3 Feb 1966	First soft landing on moon; First photos from moon	Luna 9	
1 Mar 1966	First impact into another planet (Venus)	Venera 3	
16 Mar 1966	First spacecraft docking		Gemini 8 / ATV-NASA
3 Apr 1966	First artificial satellite to orbit another celestial body: the Moon	Luna 10	
12 Sep 1966	First direct-ascent rendezvous on first orbit Record highest apogee, 1,374 kilometers (854 mi), for piloted Earth orbit		Gemini 11/ATV-NASA
12-14 Nov	First 5.5 hr extra-vehicular activity/practical work		Gemini 12-NASA

1967-1968

Date	Significance	USSR	US
30 Oct 1967	First docking of two remote-controlled spacecraft	Cosmos 186/ Cosmos 188	
7 Dec 1968	First orbital ultraviolet observatory		OAO-2-NASA
21 Dec 1968	First human-crewed spaceflight to, and orbit of, another celestial object: the Moon First human spaceflight that escaped Earth's influence		Apollo 8-NASA

1969

Date	Significance	USSR	US
16 Jan 1969	First crew exchange in space	Soyuz 4 / Soyuz 5	
20 Jul 1969	First humans on the Moon First space launch from another celestial body		Apollo 11- NASA
19 Nov 1969	First precisely targeted piloted landing on the Moon (Surveyor 3 site) First man to dance on the Moon (Pete Conrad)		Apollo 12- NASA

Apollo 11



● Mission Objective

Complete a national goal set by President John F. Kennedy on May 25, 1961: perform a crewed lunar landing and return to Earth.

● Crew

Neil Armstrong, Commander
Edwin E. Aldrin Jr., Lunar Module Pilot
Michael Collins, Command Module Pilot

● Backup Crew

James A. Lovell, Commander
Fred W. Haise Jr., Lunar Module Pilot
William A. Anders, Command Module Pilot



Launch

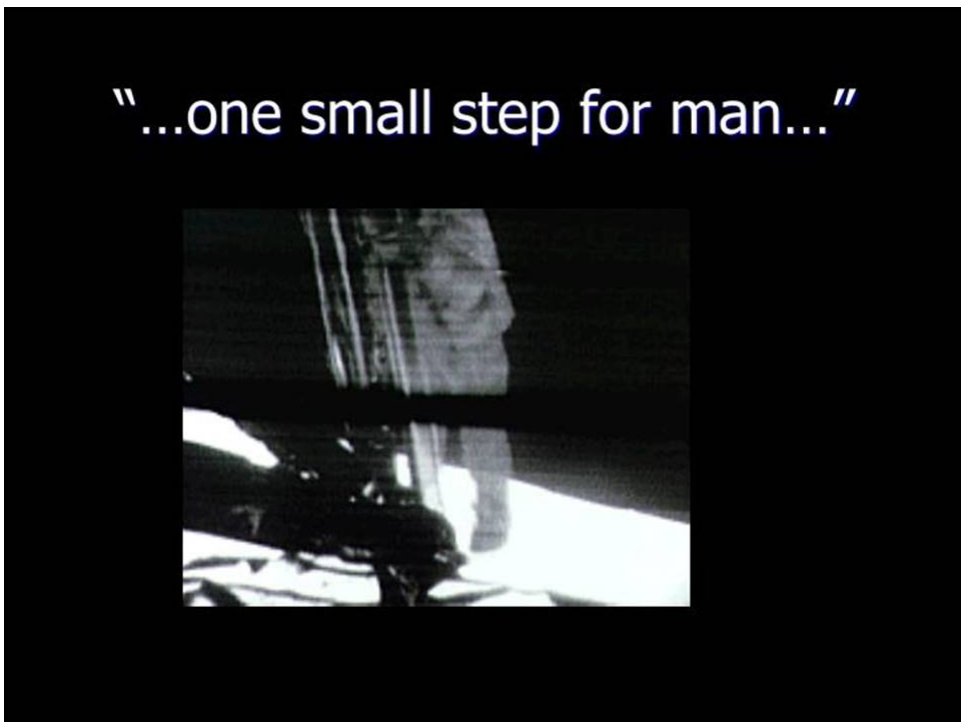
July 16, 1969; 9:32 a.m. EDT
Launch Pad 39A
Saturn-V AS-506
High Bay 1
Mobile Launcher Platform-1
Firing Room 1

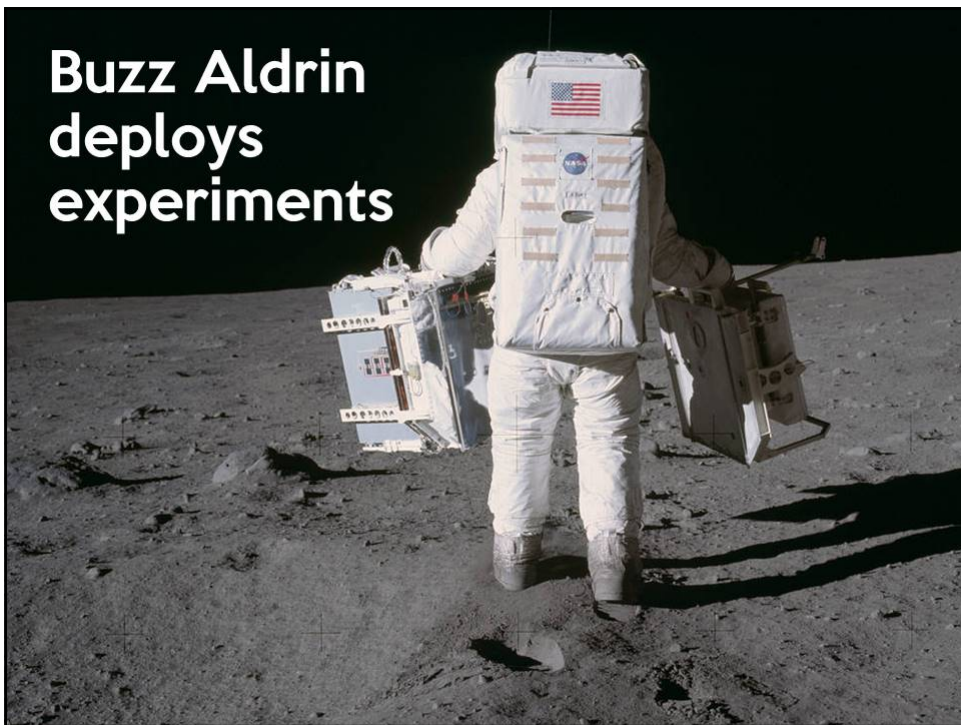
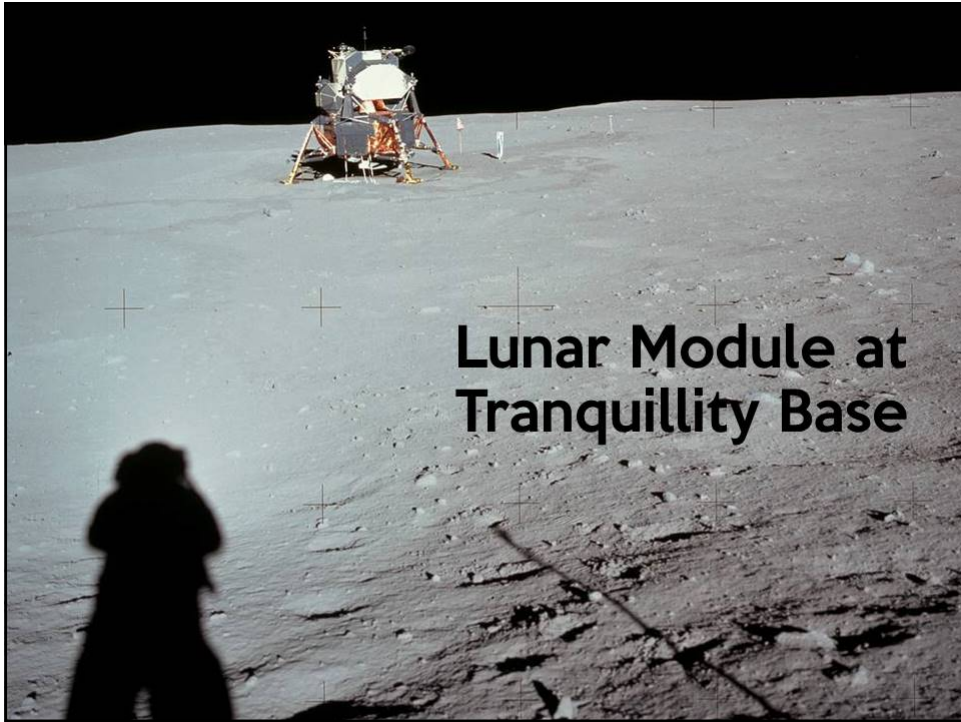


Orbit

Altitude: 118.65 miles
Inclination: 32.521 degrees
Orbits: 30 revolutions
Duration: eight days, three hours, 18 min, 35 seconds
Distance: 953,054 miles
Lunar Location: Sea of Tranquillity
Lunar Coordinates:
.71 degrees north,
23.63 degrees east







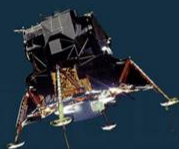


Landing

July 24, 1969; 12:50 p.m. EDT
 Pacific Ocean
 Recovery Ship: USS Hornet

THE MOON RACE

1957-1969



APOLLO 11



Apollo 11 launched from Cape Kennedy on July 16, 1969, carrying Neil Armstrong, Michael Collins and Buzz Aldrin to moon orbit. Lunar lander Eagle took Armstrong and Aldrin to the moon. Neil Armstrong became the first man to walk on the moon on July 20, 1969. 20 minutes later, Buzz Aldrin followed. Apollo 11 splashed down in the Pacific Ocean on July 24, 1969.



1969

