Welcome to Destination Moon: The Apollo 11 Mission, a celebration of humanity’s first flight to the surface of the Moon. This exhibition is presented in partnership with Smithsonian Institution Traveling Exhibition Service. Highlights include the command module Columbia and other Apollo 11 artifacts from the Smithsonian’s National Air and Space Museum, plus additions from The Museum of Flight’s renowned collection of NASA and Soviet spaceflight treasures.

This guide highlights some of the main features of the exhibition.

Restrooms are located halfway through the exhibition.

WASHINGTON GOES TO SPACE

This introduction to Destination Moon transports visitors back to Washington state in the 1960s, highlighting local contributions to the Space Race from companies like Boeing and Rocket Research Corporation, recognizing individuals with ties to the region who left their marks on the pathway to the Moon.

SEATTLE’S WORLD’S FAIR LOOKS TO THE FUTURE

In 1962, during the first lap of the Space Race between the U.S.S.R. and the U.S., Seattle hosted a World’s Fair called the Century 21 Exposition. The Fair’s venues painted optimistic visions of our future through technological innovation. Space travel was a common theme, and the iconic structure built to tower over it all was the fantastic Space Needle.

BOEING JOINS THE RACE TO THE MOON

In 1965, Boeing opened a new headquarters for its space division, located in Kent, a small community just south of Seattle. The Boeing Space Center provided testing facilities for the lunar orbiters that scouted the Moon before America sent astronauts. The center oversaw production of Saturn V rockets; it also is where the famous “lunar rovers” were designed and built for the last three Apollo missions. The rover on display here was made by the company as a test model.

AEROJET ROCKETDyne’S EARLY DAYS

Originally located in South Park, a neighborhood just north of The Museum of Flight, Rocket Research Corporation formed in 1959 to research, develop, and manufacture small rockets and associated technology for guiding spacecraft. Now part of Aerojet Rocketdyne and headquartered in Redmond, a short commute from Seattle, the company continues to develop its in-space propulsion technology there. Here you see several examples of thrusters including a modern example of one used on Apollo spacecraft.

NORTHWEST SPACE PIONEERS

Many individuals born, raised, and educated in Washington state contributed to the success of the Apollo Program. Their experience ranged from the flying the spacecraft (Gemini and Apollo astronaut Dick Gordon) and to designing life support systems (Apollo flight controller Jim Joki) to keeping spacecraft free from microbes before heading to the Moon (Boeing biologist Edith Gustan).
THE SPACE RACE IS ON

The Soviet Union launched the world’s first artificial satellite, Sputnik 1, on October 4, 1957. While the little sphere circling the Earth was no threat to the United States, the accomplishment challenged America’s leadership in the Cold War, and seemed a threat to the country’s technological and military establishment. The United States’ first satellite to orbit, Explorer 1, launched on January 31 the following year. The race for space superiority was on. The Museum of Flight’s rare Sputnik 1 seen here was a test vehicle. A full-scale model of Explorer 1 hangs next to Sputnik.

GAINING EXPERIENCE

President John F. Kennedy boldly challenged the Soviet Union’s jump in space technology by inspiring the U.S. to a goal of landing a man on the Moon and safely returning him to Earth before the end of the decade. There was no turning back for either nation. The pledge forced one of the most expensive and creative battles of the Cold War, played on a stage from here to the Moon.

The first class of spacecraft to carry people were the Soviet Vostok and the American Mercury. Hanging here is a full-scale replica of a Mercury capsule and a Russian Resurs 500 Descent Module. The Resurs orbited in 1992, but it is similar to the original Vostok.

Unlike Mercury astronauts, Vostok “cosmonauts” reentered Earth’s atmosphere over land, then ejected from the main capsule and descended by parachute independent of the capsule wearing a spacesuit like the one displayed here. This rare SK-1 suit, one of nine used in training Vostok cosmonauts, is one of only two in the United States.

The U.S. Apollo missions were controlled by teams of astronauts, engineers, and experts on the ground at NASA’s Manned Spacecraft Center in Houston, Texas. The section of the Apollo Mission Control console is on loan courtesy of NASA.

NASA’s measured steps to the Moon demanded daring and rigorous testing of larger and more complicated spacecraft and maneuvers. The first steps commenced with six flights using the single pilot Mercury, followed by nine in the two-person Gemini spacecraft, before attempting the final flights with the three-person Apollo capsule and its detachable lunar lander used on Apollo 11. This gallery displays models and artifacts from the Gemini program.

NEIL ARMSTRONG TRIBUTE

NASA chose astronauts Neil Armstrong and Buzz Aldrin to be the commander and pilot of the lunar module Eagle that would detach from the command module Columbia and descend to the surface of the Moon. Armstrong would be the first person to step out of Eagle and put the first footsteps on the Moon, soon followed by Aldrin. The third member of the Apollo 11 crew, Michael Collins, remained orbiting the Moon in Columbia.

On display here are some of Neil Armstrong’s personal mementos on loan from his family. The display includes a 1968 euphonium (he played one in bands during high school and college), his Congressional Space Medal of Honor, fragments of the Wright brothers’ first airplane that he took to the Moon, and an ill-fitting astronaut flight suit. After retiring from NASA it became his preferred coverall when doing chores around the house and farm in Ohio. He nicknamed it the “short-fat flightsuit.”
Edwin “Buzz” Aldrin, Jr. | Lunar Module Pilot

A native of Montclair, New Jersey, Aldrin attended West Point. As an Air Force pilot, he shot down two MiGs during the Korean War. In 1963 he earned a Ph.D. from MIT, with a dissertation on orbital rendezvous, and shortly thereafter was accepted for NASA’s third group of astronauts. On Gemini XII in 1966, Aldrin hand-calculated the rendezvous maneuvers when the spacecraft computer failed. He also made two spacewalks and perfected the tools and methods for working outside the spacecraft. In 1988 he legally changed his given name to Buzz.

Neil Armstrong | Commander

Born in Wapakoneta, Ohio, Neil Armstrong was an aeronautical engineer and a Navy fighter pilot during the Korean War. In 1955 he joined the National Advisory Committee for Aeronautics, which soon became NASA. He served as a test pilot on many high-speed aircraft, including the X-15 rocket plane. Armstrong became a NASA astronaut in 1962. He commanded the Gemini VIII mission, on which he performed the first successful docking of two vehicles in space. Armstrong died in 2012.

Michael Collins | Command Module Pilot

Born in Rome, Italy, while his father was a U.S. military attaché, Collins attended West Point. He became an Air Force fighter pilot and an experimental test pilot. Collins joined NASA in 1963 as one of the third group of astronauts. He served as pilot on Gemini X in 1966 and walked in space during that mission. After Apollo 11, Collins served from 1971 to 1978 as the director of the Smithsonian’s National Air and Space Museum.
THE F-1 ENGINES
This section focuses on the development of Apollo’s massive Saturn V rocket and the five F-1 engines that powered it. After the engines boosted the Saturn V to 40 miles high, they fell into the Atlantic Ocean and sank to depths greater than those of the wrecked *Titanic*. The engines were lost for over 40 years until they were found and raised by Bezos Expeditions in 2012-2013. On view is a complete Apollo F-1 engine alongside the salvaged F-1 parts used on Apollos 11, 12 and 16.

The F-1 parts here are arranged in their relative positions as they would appear in a fully assembled engine resting on its side. These components represent approximately the top third of a fully assembled engine. The cone-shaped bell and nozzle extension that made up the bulk of the engine’s volume were completely destroyed when the engine crashed into the ocean. Parts include the Apollo 12 thrust chamber, and the Apollo 16 gas generator and heat exchanger.

DEKE SLAYTON – CHIEF ASTRONAUT
Donald “Deke” Slayton was selected as one of NASA’s original Mercury 7 astronauts. Unfortunately, he was grounded when doctors discovered he had an erratic heart rate. But he stayed with NASA and became the head of the Astronaut Office overseeing the crew assignments of the Gemini and Apollo astronauts, forming tight bonds and responsibilities with each person.

Because Slayton was unable to earn the traditional astronaut pin awarded after a spaceflight, the astronaut corps had a special pin made for him that was supposed to be given to Slayton after it was flown on Apollo 1. But the Apollo 1 crew tragically died in a ground test, and the pin was given to Slayton by the crew’s widows. In their honor, he was rarely on the job without wearing it. One such exception was during the Apollo 11 mission, when Neil Armstrong took it to the Moon for him. Slayton eventually flew in space during the Apollo-Soyuz mission in 1975. He died in 1993. His widow entrusted the beloved pin to The Museum of Flight in 2012, where it has since been on permanent display.

APOLLO 11 F-1 INJECTOR PLATE
Here is the recovered Apollo 11 F-1 injector plate that sprayed liquid oxygen and kerosene fuel into the combustion chamber and helped regulate the flow of the hot gases.

MOON LANDING
Nearly four days after their launch on July 16, 1969, astronauts Neil A. Armstrong and Buzz Aldrin landed the lunar module, *Eagle*, on the Sea of Tranquility on July 20 while Michael Collins piloted the command module, *Columbia*. Fifty years later, we recognize the mission as one of the greatest events of the 20th century, although we still struggle to grasp its full meaning. Regardless, it will forever be marked as the time humans first set foot on another world. The final galleries of the exhibition contain objects flown on that historic mission, including the spacesuit visor and gloves worn by Buzz Aldrin on the surface of the Moon, lunar samples, the astronauts’ survival kit and the space voyagers’ mothership, *Columbia*.
MAJOR ARTIFACT LIST

*Indicates objects flown on the Apollo 11 mission.

WASHINGTON GOES TO SPACE
1. Lunar Roving Vehicle
2. Thrusters - .1 lb, 5 lb and R-4D-11
3. Gemini XI Flight Suit

THE SPACE RACE IS ON
4. Explorer 1
5. Sputnik 1

GAINING EXPERIENCE
6. Resurs 500 Capsule
7. SK-1 Vostok Space Suit
8. McDonnell Mercury Capsule Reproduction
9. Mission Control Console
10. Gemini Artifact Case, includes:
    - Navigational chart
    - Spacecraft Weather Plotting chart
    - Spacesuit Glove
    - Gemini thruster
    - Gemini Model 1:48 scale
    - Lockheed Agena model
    - Gemini 5 mission patch
    - Gemini Titan Booster section
11. Gemini Training Suit cover
12. Neil Armstrong Tribute artifacts
    - Short-Fat Flight Suit
    - Congressional Space Medal of Honor
    - Piece of the Wright Flyer*
    - Conn Euphonium
    - Musical Programs

LAUNCH
13. Recovered F-1 Engine parts from Apollo 12 and 16
14. F-1 Engine & Nozzle Extension
15. Apollo 11 F-1 Injector Plate*
16. Deke Slayton’s Diamond Astronaut Pin*

MOON LANDING
17. Star Chart*
18. Lunar Sample Return Container* “Rock Box”
19. Lunar Sample #12047
20. Collins’ Chronograph*
21. Portable Life Support System
22. John Young’s A7-L Spacesuit
23. Aldrin’s Extravehicular Visor* and Gloves*
24. Lunar Module Ascent Stage full-scale replica
25. Columbia Hatch*
26. Command Module Columbia*
27. Rucksack #1, Survival Kit*
28. Apollo Heatshield Manufacturing Model
29. Unablated Apollo Heatshield Sample
    Ablated Apollo Heatshield Sample

Don’t Forget!
Be sure to check out our interactive Tranquility Base after you exit Destination Moon.
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Thank you to our sponsors!

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