

Neil Armstrong

(1930–2012)

Engineer, pilot, astronaut and the first human to walk on the Moon.

Neil Armstrong accepted that he would always be remembered as the first human to set foot on the Moon, which he did as commander of the *Apollo 11* mission on 20 July 1969. But that was not all that defined him. Armstrong was proud of his naval service: flying combat missions in the Korean War and testing high-performance aircraft. He was a committed educator and a quiet but thoughtful force in delineating US aerospace policy.

Armstrong died aged 82 on 25 August 2012, from complications of heart-bypass surgery. He was born on 5 August 1930 on his grandparents' farm near Wapakoneta, Ohio. His parents took him to air races as a boy and he fell in love with the prospect of flying. Armstrong took his first plane ride in a Ford Tri-Motor at the age of 6, and by 16 he had earned his student pilot's licence; all before he could drive a car or had a high-school diploma.

After high school, Armstrong went to Purdue University in West Lafayette, Indiana, to study aeronautical engineering. His scholarship from the US Navy required him to serve a tour of active duty after two years of education. He became an aviator, and in 1950 was sent to Korea, where he engaged in raids of North Korean railway bridges, targets that have been immortalized in the James Michener novel *The Bridges at Toko-Ri*.

In 1952, Armstrong returned to Purdue to finish his bachelor's degree and then joined the National Advisory Committee for Aeronautics (NACA), which became NASA in 1958. As an engineer and research pilot he worked at NACA's Lewis Research Center near Cleveland, Ohio, and then at the High Speed Flight Research Center in Edwards, California. Armstrong flew pioneering aircraft, including the X-15 rocket plane that set speed and altitude records in the early 1960s. Over the years, he took the controls of more than 200 models of jet, rocket, glider and helicopter.

Armstrong transferred to astronaut status in 1962, and was one of nine members of the second class to be chosen for spaceflight. (The first class, the Mercury Seven, was picked in 1959.) His experience was

invaluable during his first mission in March 1966, in *Gemini VIII*, when he and David Scott docked their capsule in orbit around Earth to an Agena spacecraft, the first such rendezvous in space. Soon after, the joined vehicles began tumbling uncontrollably.



Armstrong managed to undock *Gemini VIII* and stabilize the craft, and the astronauts made an emergency landing in the Pacific Ocean. They learned later that a stuck control jet had caused the spacecraft to spin.

On *Apollo 11*, as is now legendary, Armstrong, along with Michael Collins and Edwin 'Buzz' Aldrin, completed the first Moon landing. Armstrong piloted the lunar module during its final descent, and stepped down to make his famous (mis)statement: "That's one small step for [a] man, one giant leap for mankind." Armstrong and Aldrin spent around two and a half hours on the Moon's surface, collecting samples, doing experiments and taking photographs, before returning to Collins and the lunar module. The trio splashed down into the Pacific Ocean on 24 July.

Almost everyone who is old enough recalls where they were when *Apollo 11* touched down on the Moon. In the United States, the landing briefly unified a nation divided by political, social, racial and economic

tensions. Millions of people, myself included, imagined being Armstrong as he reached the "magnificent desolation" of the lunar surface. As a 15-year-old, I sat with friends on a car, looking up at the Moon and listening to the astronauts over the car's radio. It was an inspirational moment, but it was fleeting.

What was not fleeting was how Armstrong embodied the spirit of the accomplishment until his last breath. He lived a life of quiet grace, rarely embroiling himself in day-to-day fights while exemplifying a unique merger of the 'Right Stuff' with introspection and calm. Some have characterized him as a recluse; I know some at NASA wished that he had supported the agency's initiatives more publicly.

Armstrong sought neither fame nor riches. When he could have done anything he wished, he chose to teach aerospace engineering at the University of Cincinnati in Ohio.

For four decades, Armstrong made clear his perspective on myriad aerospace issues to many leaders and to the commissions on which he served. His considered opinions carried weight, notably in the Centennial of Flight Commission, which oversaw the commemoration of the Wright brothers, and in the investigation of the *Challenger* accident.

Commentators usually compare Armstrong's first step on the Moon to Christopher Columbus's arrival at the Americas, as vanguards of sustained exploration and settlement. Yet increasingly, the parallel seems to be the voyage centuries earlier of Norse explorer Leif Erikson — a stillborn event in the long process of exploring new lands.

Armstrong was always perplexed by the praise heaped on him. The Moon landing was the result of the labour of hundreds of thousands and the accomplishment of a generation of humanity, he said. We will all miss him, not just for being the first Moon walker, but for the honour and dignity with which he carried the weight of that history on his back. ■

Roger D. Launius is a senior curator in the Division of Space History at the Smithsonian Institution's National Air and Space Museum. e-mail: launiusr@si.edu