

WALTER CRONKITE – IMAGE #3

With the world watching on July 16, 1969, American astronauts Neil Armstrong, Edwin “Buzz” Aldrin, Jr., and Michael Collins waved to everyone as they board *Apollo 11* for their journey to the moon. Armstrong, a 38-year-old civilian research pilot, was the commander of the mission. A U.S. Navy pilot, he had flown 78 combat missions during the Korean War. He was a graduate of Purdue University with a bachelor’s degree in aeronautical engineering. After joining the National Advisory Committee for Aeronautics (NACA) in the 1950s, he had worked for that government agency in a number of different capacities, including serving as a test pilot and engineer. He had tested many high-speed aircraft, including the X-15, which could reach a top speed of 4,000 miles per hour. In 1962 he had joined the astronaut program. Armstrong served as the command pilot for his first mission, *Gemini 8*. He and fellow astronaut, David Scott, were launched into Earth’s orbit on March 16, 1966. While in orbit, they were able to dock their space capsule briefly with the *Gemini Agena* target vehicle. This was the first time two vehicles had successfully docked in space. During this maneuver, however, they experienced problems and had to cut their mission short. They landed in the Pacific Ocean nearly 11 hours after the start of the mission. After serving as backup commander for *Apollo 8*, Armstrong was offered the post of commander of *Apollo 11* on December 23, 1968, as *Apollo 8* orbited the moon. This led to him becoming the first human ever to set foot on the moon. *Apollo 11* consisted of a spindly lunar lander *Eagle*, and an orbiting mothership, *Columbia*, that were both blasted into space on a giant *Saturn V* rocket on July 16, 1969.

Aldrin’s specialized study of rendezvous had helped earn him entry into the space program shortly after graduation in 1963 from MIT, where he had received a Ph.D. in aeronautics and astronautics. In that same year Aldrin was part of a third group of men selected by NASA to attempt to pioneer space flight. He was put in charge of creating docking and rendezvous techniques for spacecraft. He also pioneered underwater training techniques to simulate flight in zero gravity. In 1966 Aldrin and astronaut Jim Lovell were assigned to the *Gemini 12* crew. During their space flight from November 11 through November 15, 1966, Aldrin had made a five-hour spacewalk – the longest and most successful spacewalk ever done up to that time. He also had used his rendezvous abilities to recalculate manually all the docking maneuvers on the flight, after the on-board radar failed. After *Gemini 12* Aldrin was assigned to the back-up crew of *Apollo 8* along with Neil Armstrong and Harrison “Jack” Schmitt. On July 20, 1969, he accompanied Armstrong, his flight commander, on the historic *Apollo 11* moonwalk, as they became the first two humans to set foot on another celestial body. They spent 21 hours on the moon’s surface and returned with 46 pounds of moon rocks. The walk, which was televised, drew an estimated 600 million people to watch, becoming the world’s largest television audience in history.

As Armstrong and Aldrin took the first human steps on the moon, Collins orbited high above them. He waited for 21½ hours in the command module, *Columbia*, while his fellow astronauts remained on the lunar surface. Collins, the least known of the *Apollo 11* crew, had graduated with a bachelor of science degree from West Point in 1952. He joined the

U.S. Air Force, in which he served as an experimental flight test officer at Edwards Air Force Base. Collins was accepted with the third group of astronauts in 1963. He then served as a pilot on *Gemini 10*, which launched on July 18, 1966. That mission's purpose was to conduct rendezvous and docking tests with two target vehicles – a booster launched earlier that day and a defunct booster left over from *Gemini 8*. During that mission, Collins performed two space walks, spending over an hour outside the ship and becoming the first person to meet another craft in orbit. While waiting for his fellow astronauts to complete their tasks on the surface of the moon, Collins, the command module pilot, waited on board *Apollo 11* and drifted behind the moon, completely cut off from all human contact on Earth. He wrote: "I am alone now, truly alone, and absolutely isolated from any known life. I am it. If a count were taken, the score would be three billion plus two over on the other side of the moon, and one plus God knows what on the other side." In addition to dealing with this isolation, Collins was also obsessed with the reliability of the ascent engine of the landing lunar module, *Eagle*. It had never been fired on the moon's surface before. The astronauts all had serious doubts about its reliability. They knew that there was only a 50-50 chance that Armstrong and Aldrin might remain stranded on the lunar surface if the engine failed to ignite. If that occurred, the two moonwalkers would die when their oxygen ran out. If the engine failed to burn for at least seven minutes, then the two astronauts would either crash back onto the moon or be caught in low orbit around the moon and beyond the reach of Collins in his mothership, the *Columbia*. They would be left in space forever, and Collins would have been the sole survivor of the historic mission.

Nor were the astronauts alone in this thinking. President Richard Nixon had even prepared a speech that he would deliver in case of such a tragedy. His speech turned out to be unnecessary.

The engine on the lunar module worked flawlessly. At 1:54 p.m. EDT on July 21 the *Eagle* blasted back up to the command module. Collins performed the necessary docking maneuvers with the lunar module. Armstrong and Aldrin rejoined him, and the three astronauts returned home, splashing down safely in the Pacific Ocean on July 24 at 12:51 p.m. EDT.