



25 September 2012 | [MP3](#) at voaspecialenglish.com

Apollo's Final Missions: The Last Footsteps on the Moon

SHIRLEY GRIFFITH: I'm Shirley Griffith.

STEVE EMBER: And I'm Steve Ember with EXPLORATIONS in VOA Special English. Today we tell about the flights that followed Apollo Eleven to the moon.

SHIRLEY GRIFFITH: The summer of nineteen sixty-nine was a special time in history. That was when men from Earth -- American astronauts -- flew their Apollo Eleven spacecraft to the moon, landed and returned home safely. The world honored the astronauts as heroes.

Neil Armstrong and Edwin Aldrin were the first to land on the moon. But they were not the last. NASA -- the National Aeronautics and Space Administration -- launched six more Apollo flights.

Apollo Twelve lifted off only four months after the Apollo Eleven flight. Rain had fallen the night before. The clouds cleared, but more rain was expected. Space officials decided the weather was safe enough for them to launch the spacecraft.

Thirty-six seconds after lift-off, lightning hit the huge Saturn Five rocket. The Apollo spacecraft lost electrical power to its control system. The astronauts worked calmly to get the power back on. Then lightning struck again. And power was lost again.

The lightning, however, did not affect the Saturn rocket. The rocket continued to push the spacecraft on its path. The astronauts soon fixed the electrical problem. The situation returned to normal. Apollo Twelve could continue its flight to the moon.

STEVE EMBER: All three astronauts of Apollo Twelve were Navy fliers. Charles Conrad was the flight commander. Richard Gordon was pilot of the command module. Alan Bean was pilot of the moon lander.

After four days, Apollo Twelve was near its landing area on the moon. It would land in an area called the Ocean of Storms. The Ocean of Storms was about two thousand kilometers west of the place where Apollo Eleven had landed.

Richard Gordon remained in the command module circling the moon. Charles Conrad and Alan Bean flew the lander craft to the surface. They came down near Surveyor Three, an unmanned spacecraft that had landed on the moon two years before. Surveyor had sent back six thousand pictures of the moon before it stopped working.

Conrad stepped out of the lander onto the moon. He described the surface as he walked away from the spacecraft. "Oh," he said, "is this soft! I don't sink in it too far. "

SHIRLEY GRIFFITH: Alan Bean followed Charles Conrad to the surface. The two astronauts collected about thirty-five kilograms of rocks. They left five scientific instruments designed to send information back to Earth. And they visited the old Surveyor spacecraft.

The two astronauts spent more than thirty-one hours on the moon. Then they returned to the orbiting command module and started back to Earth. They landed in the Pacific Ocean, only six kilometers from the ship that waited to rescue them.

(MUSIC)

STEVE EMBER: The next flight in America's Apollo space project -- Apollo Thirteen -- never landed on the moon. Three days after launch, an explosion damaged the spacecraft. The astronauts lost most of their oxygen. They had to cancel the moon landing and use the moon lander as a lifeboat. Oxygen from the lander kept them alive during the long trip back to Earth.

Apollo Fourteen was launched in January, nineteen seventy-one. It landed in the hilly Fra Mauro area of the moon.

Fra Mauro is a huge highlands east of Apollo Twelve's landing place. A large meteorite hit the area four thousand million years ago. The force of the crash spread material from deep inside the moon. Scientists wanted to study this material. They believed it would give them important information about the early history of the moon.

SHIRLEY GRIFFITH: The commander of the Apollo Fourteen flight was Alan Shepard. He had been the first American in space. Stuart Roosa and Edgar Mitchell were the other members of the crew. One piece of equipment on Apollo Fourteen was a light-weight vehicle with two wheels. The astronauts used it to carry tools and cameras while they were on the moon. The vehicle made it possible for them to travel farther from the spacecraft to collect rocks and do

experiments. They walked as far as three kilometers from the moon lander. Even with the two-wheeled vehicle, however, Shepard and Mitchell could not reach one of their goals -- a crater called Cone. They did not have enough oxygen to walk that far. They had to return to the lander.

Apollo Twelve and Apollo Fourteen produced much new scientific information. And they increased the interest of scientists in the next Apollo flights to the moon.

STEVE EMBER: The last three flights would permit astronauts to stay much longer on the moon. They also would provide a vehicle with four wheels in which astronauts could ride. With such a vehicle, astronauts could explore a much larger area of the moon's surface. The vehicle was called a lunar rover.

The lunar rover was powered by electricity. It could carry two astronauts more than thirty kilometers from the lander. It could carry more than one hundred ten kilograms of equipment. The Lunar Rover also had a television camera and an antenna for sending color television broadcasts back to Earth.

SHIRLEY GRIFFITH: David Scott, Alfred Worden and James Irwin were the crew for Apollo Fifteen. They were launched in July, nineteen seventy-one. They landed at Hadley Rille near the Apennine Mountains, northwest of the place where Apollo Eleven had landed.

Scott and Irwin were the first to use the Lunar Rover vehicle. They made several trips from the landing area to study the surface of the moon. They gathered seventy-six kilos of moon rocks. And they placed a small satellite in lunar orbit before they returned to Earth.

The Apollo Fifteen astronauts returned safely. Scientists were excited about the moon rocks the astronauts brought back. They named one of them "the Genesis Rock." It is believed to be more than four billion years old. Scientists say the rock was created very early in the life of the moon.

Soil brought back contained bits of orange glass. Scientists said the glass came from material created as deep as three hundred kilometers below the moon's surface.

Astronauts John Young, Thomas Mattingly and Charles Duke flew Apollo Sixteen to the moon in April, nineteen seventy-two. Young and Duke landed southwest of the Apollo Eleven landing place. They spent forty-five hours on the moon. They collected rocks and set up scientific equipment.

STEVE EMBER: Astronauts Eugene Cernan, Harrison Schmitt and Ronald Evans made the last Apollo flight to the moon. That was in December, nineteen

seventy-two. Cernan and Schmitt landed in a valley almost directly north of the Apollo Eleven landing place. They spent seventy-five hours, in all, on the surface. More than twenty-two hours were spent working outside the lander.

The astronauts made three trips in the lunar rover to take pictures and collect rocks. The astronauts also left many scientific devices that would continue to report information about the moon.

Cernan and Schmitt lifted off the moon on December fourteenth. Just before leaving, they placed a metal sign on the surface. The sign was to remain forever.

It said: "Here man completed his first exploration of the moon December 1972. May the spirit of peace in which we came be reflected in the lives of all mankind."

SHIRLEY GRIFFITH: Production of the Saturn Five rocket and the Apollo spacecraft ended with Apollo Seventeen. America's manned explorations of the moon were completed.

It was the end of a special time in human history. It had been the first time people moved beyond their small planet into the huge solar system. Now, once again, the moon was beyond human reach.

STEVE EMBER: Our program was written by Marilyn Rice Christiano. It was produced by Mario Ritter. I'm Steve Ember.

SHIRLEY GRIFFITH: And I'm Shirley Griffith. You can find the complete series on the American space program on our Web site, voaspecialenglish.com. Join us next week for EXPLORATIONS in VOA Special English.