



# Stars and Stripes: Putting The Flag on the Moon

## The Astronauts Left Six Lunar Flags, None Flapping in the Breeze

By GINA SUNSERI

July 18, 2009—

Tom Moser had no idea his top-secret project for the [Apollo 11 lunar landing](#) would be used by conspiracy theorists.

Moser, a young engineer at the Johnson Space Center in 1969, was tasked with figuring out how to fly a U.S. flag on the moon during the [historic mission 40 years ago](#).

The success of the project depended on a small team of engineers -- and it had to be finished quickly.

Moser is now retired, but he remembers the mandate.

"Someone in Congress said, 'Make it happen,'" he recalled. "But it had to be done quietly, because putting a U.S. flag on the moon was politically sensitive."

It was sensitive because NASA would have to sidestep a United States treaty that bans the national appropriation of outer space or any celestial bodies.

Flying a [flag on the moon](#) was going to be a challenge.

### How Do You Mount a Flag on the Lunar Surface?

Moser and his team had a long list of technical issues:

- Where do you store the flag on the lunar module to protect it from the elements?
- How do you make it easy for an astronaut, wearing a cumbersome spacesuit, to get it out of storage and set it up?
- And how do you mount it on the lunar surface?

Moser started with an off-the-shelf flag that cost \$5.50. The technical services department at the Johnson Space Center then developed a collapsible flagpole with a telescoping horizontal rod sewn in to a seam on the top of the flag, to extend it outward.

The flag design team flew out to the Kennedy Space Center just days before the launch. At 4 a.m. on the morning of the launch, they mounted the flag to the lunar module of Apollo 11 as it sat atop a Saturn V rocket.

Moser watched the lunar landing from home.

"I watched Neil Armstrong go down the ladder," he said. "It looked like he fell. I thought he had caught his spacesuit on the ladder, that it had ripped his suit open -- and that was the end of manned space flight and it was all my fault."

The ladder did not fail, the flag did not snag Neil Armstrong's suit and Armstrong did not fall. He just skipped the last step, jumped to the moon's surface, and said those memorable words: "That's one small step for man, one giant leap for mankind."

### **'Nearly a Public Relations Disaster'**

The flag was deployed at 4 days, 14 hours and 9 minutes into the mission and it wasn't easy.

In Edgar M. Cortwright's book, *Apollo Expeditions to the Moon*, astronaut Buzz Aldrin recalled what happened when he and Neil Armstrong tried to set up the flag.

"It took both of us to set it up and it was nearly a public relations disaster," he wrote. "A small telescoping arm was attached to the flagpole to keep the flag extended and perpendicular. As hard as we tried, the telescope wouldn't fully extend. Thus the flag which should have been flat had its own permanent wave."

The wrong coating had been applied to the telescoping rod, so it wouldn't fully extend, which is why the flag looks like it is waving in the wind. Ironically, that famous picture of Buzz Aldrin posing next to the flag is often cited as evidence by conspiracy theorists as proof the mission to the moon was a hoax.

They claim the rippled flag could not have actually been on the moon since there is no breeze on the moon. The flag's waves, they argue, were created by a breeze in some top secret NASA stage set depicting the moon's surface.

There were political implications, as well, according to Anne Platoff, a historian who wrote about the Apollo 11 flag in a paper, "Where No Flag Has Flown Before."

She said the United Nations had passed a treaty stating "outer space, including the moon and other celestial bodies, is not subject to national appropriation."

The United States would not and could not claim the moon.

Instead, raising the flag would be a symbol of the single-minded pursuit that began with President John F. Kennedy's pledge to Congress on May 26, 1961.

"I believe this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth," Kennedy said. "No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space, and none will be so difficult or expensive to accomplish."

### **Flags From Other Nations Will Likely Join the U.S. Flag**

Now there are six U.S. flags on the lunar surface, left by the crews of each Apollo mission. Each flag was

deliberately designed with the same flaw to prevent the horizontal telescoping rod from fully extending.

When astronauts from the United States return to the moon around 2020, the crew most likely will represent several nations, so flags from other nations probably will join the six U.S. flags.

Copyright © 2009 ABC News Internet Ventures